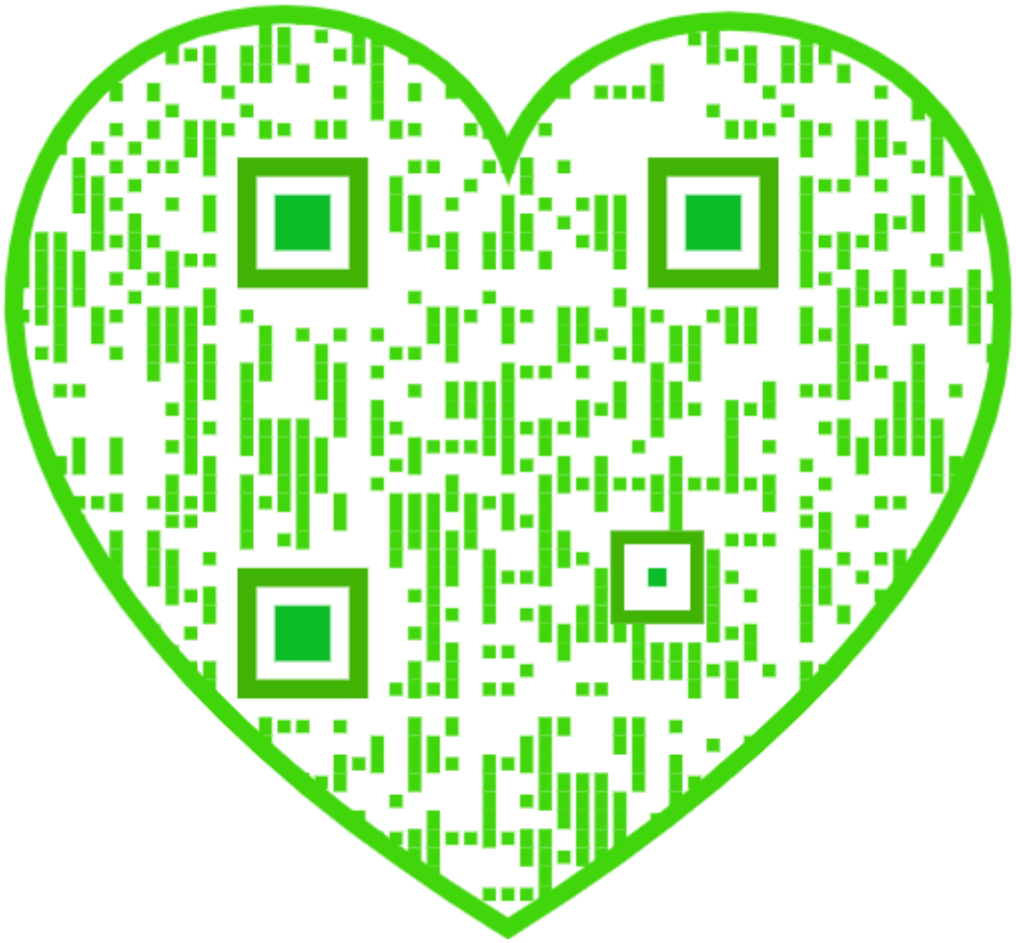
UMASS/AMHERST
312066 0333 2913 0



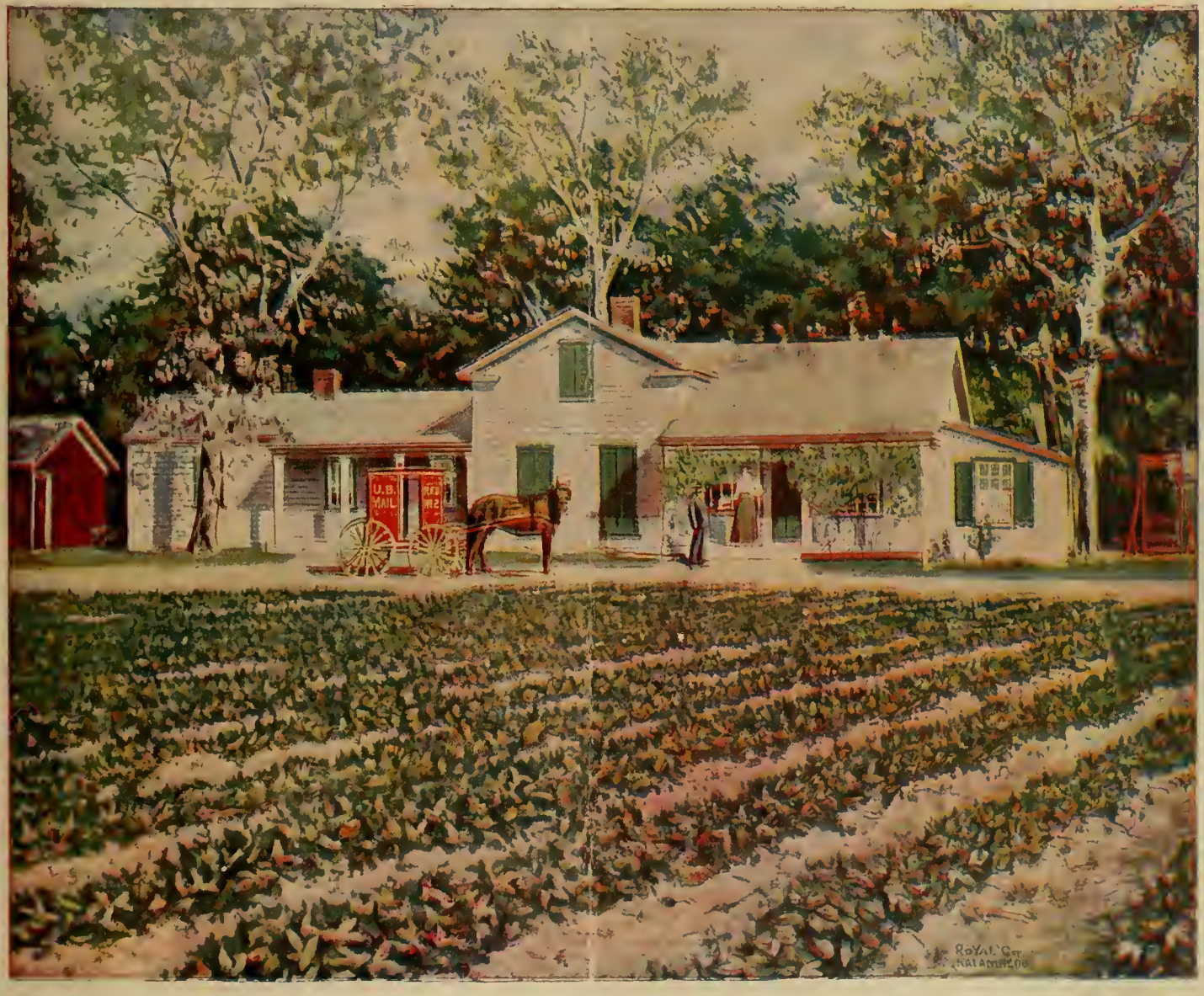
UNIVERSITY OF MASSACHUSETTS
LIBRARY

Per
SB
385
A158
v.1-2
1906-07

January 1906

THE STRAWBERRY

"The Lord might have made a better thing than the Strawberry---but He didn't."



PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Stg v.1-2

Aspinwall Four-Row Sprayer in use on 80-acre Strawberry Field.
R. M. Kellogg's Plant Breeding Farms, Three Rivers, Mich.

Aspinwall Four-Row Sprayer

The machine par-excellent for spraying Potatoes, Strawberries, Cabbages, Melons, &c.

Thousands in Use. SIMPLE, DURABLE and EFFECTIVE.

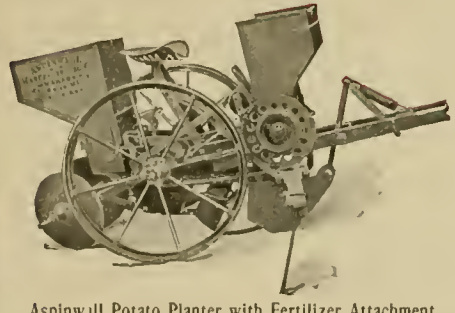
Aspinwall Potato Cutter.

Three Rivers, Mich., Dec. 15, 1904.

ASPINWALL MFG. CO.:—

We appreciated the Aspinwall Sprayer that we used last summer for it was effective in its work and at the same time was a money-saver by doing better work at less expense than any other machine we had ever used. R. M. KELLOGG CO.

Aspinwall Potato Machinery



Aspinwall Potato Planter with Fertilizer Attachment.

Is acknowledged as Standard the world over. We are the only concern in the world making a full line of Potato Machinery consisting of

Cutters, Planters, Sprayers, Diggers, Sorters

WRITE FOR CATALOGUE AND PRICES

ASPINWALL MFG. CO. 109 Sabin St. Jackson, Mich., U. S. A.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 1 Three Rivers, Mich., January, 1906 $1.00 a Year

ONE of the peculiar facts in relation to the most universal of horticultural interests—strawberry culture—is the dearth of literature upon the subject, both periodical and permanent, and the slight attention given the subject alike by the agricultural experiment stations and the horticultural press. The first sentence of a bulletin received from a certain experiment station is as follows: "There is probably no other single horticultural subject concerning which inquiries are more frequently made of the Experiment station than that of strawberries and their varieties." Yet the letter accompanying that bulletin, written by a member of the station staff, advises us that nothing has been published by that station on the subject since 1896. Turn to the agricultural and horticultural press, and information relating to the strawberry obtainable from that source is so meagre, speaking of the general run of these journals, as to be negligible. Recently a Buffalo correspondent wrote us that she had gone to the public library in that city in the hope of finding something that would aid her to carry out her resolve to engage in strawberry culture, but "what I found there," she says, "really was discouraging, and so I come to you for help."

When we consider the magnitude of the strawberry interest from the viewpoint of its universal popularity, or from its large industrial and commercial importance, or as a field of boundless opportunity to the seeker after an independent and profitable business, such neglect of an interest commanding the time and talents of so many intelligent men and women appears strangely out of place in a land so full of enterprise as our own, given over as it is in so remarkable a degree to specialization.

However, a closer study of the situation reveals the fact that important as the strawberry industry is, and universally popular, few men adequately have realized the scientific interest that it holds, nor how great the rewards it gives to those who devote to it their thought and skill. Rewards in the way of pleasurable hours such as nature lovers delight in, who witness the work of their hands taking shape in a larger or more deliciously flavored, or more delicately colored, berry than the variety with which he works had grown before. Imagine the satisfaction of a Burbank who, after working in the laboratory of nature for many long years, sees the splendid fruition of his hopes and dreams, and realizes that man may indeed become a fellow-worker with the Creator. To have originated such a fruit as the Senator Dunlap or Warfield strawberry is a world-service of inestimable importance, and Mr. Reasoner and Mr. Warfield receive the sincere gratitude of thousands for these great contributions to the strawberry world. Then there is the reward which comes to the owner of the strawberry patch in the city yard. An abundance of fresh fruit, cold and rich with the fine flavor that only the berry just from the vine invariably may possess, is a gift of the gods that may not be too highly valued. Or if we consider the financial returns, we find that the strawberry field offers the most satisfying investment of time, labor and capital, giving increased returns without fail for every extra attention given it.

We repeat that few men have sufficiently understood how great were the opportunities offered in this field to be led to take up its study with scientific thoroughness, and the result is the condition to which we have pointed. Now, however, the commercial side of strawberry production is become so important that this field no longer may be neglected. Where there was one acre a score of years ago there are today hundreds of acres devoted to strawberry growing. In the South it has become a business so vast that it is difficult to get statistics approximating the actual figures represented by it in dollars and cents. And although it has become so great and steadily is increasing, the production "down in Dixie" not only does not affect the demand for the Northern-grown fruit, but positively seems to encourage still greater enterprise in the northern part of the country, and here new and larger areas are being devoted to strawberry production.

The field of the strawberry extends from the equator to the fringe of the arctic circle, and it is a field so inviting that people everywhere are interested in exploring its possibilities and sharing in its profits. What the future may develop in this direction none may estimate, but with a steadily increasing demand for

Foreword

MORE men and women are engaged in strawberry growing than are to be found in any other line of horticulture, yet there has been up to the present time no periodical that has made attempt adequately to represent this great and growing industry.

Hence The Strawberry, whose mission it shall be to carry information, instruction and advice to all who read its pages.

To solve the perplexing problems that face the strawberry culturist, bring joy to the amateur and financial success to the commercial grower—to make light the burdens of all, increase their pleasures and profits and point the way to success—these are the lines of work laid down for this journal.

Following the course of "Nature throughout the year, marching with the seasons and marking time with the months," each issue will bring seasonable instruction and suggestion, making failure all but impossible and insuring readers against costly mistakes.

Edited by those whose lives largely have been devoted to the scientific study and the practical production of the strawberry, its teachings will be sound, safe and sure.

With resources for experimentation and practical tests unexcelled, published upon the largest strawberry-plant farm in the world, as it is, it will ever be found in the vanguard of progress in all that pertains to the strawberry, satisfied with nothing short of the best.

We want you with us; want your kindly friendship, your interested and cordial cooperation and your dollar. May we not have them?

COPYRIGHTED BY THE KELLOGG PUBLISHING CO. 1906

32757

berries in all parts of the country, there is sure to be a largely increased output. The men and women of the country who at this time prepare themselves by practice and study to enter the great field may confidently look forward to results of the most gratifying character. The needful information and instruction which has deterred so many from taking up the work in the past now is forthcoming, and all who wish to do so may with confidence engage in this pleasurable and profitable occupation.

There's big money and infinite pleasure in strawberry production—if you know how. The Strawberry will point the way to complete success.

Some January Suggestions

JANUARY is an important month in the lives of all of us. It is the month of new resolutions; the month of plan-making for the spring that seems all the nearer now that "the backbone of winter has been broken" and we measure the time of its coming by weeks. It is the time to determine just what you are going to do, how much you intend to do and how you will do it. If

"The best laid plans of mice and men
Gang aft agley,"

it is even more true that the man who has no plan at all is sure to go wrong. Now is the time, then, to make your resolve that you will grow this season of 1906 only the best plants that can be had, that the cultural methods employed shall be the very best and most thorough, that nothing shall be left undone that will aid in making your crop the biggest, the best and altogether the most satisfactory one ever grown in your section. And then make your plans for putting this resolve into practical effect.

The first thing to do, if you have not already mulched the plants now growing in your field or lot, is to get right out and do it. We refer to mulching several times in this issue, and we urge it so strongly because it has so many good things about it and is so essential to best results in strawberry culture.

1. Mulching prevents freezing and thawing, which causes expansion and contraction, resulting in the straining or breaking of the roots of the plants.

2. It holds plants dormant, preventing to a certain extent, extra-early blooming, which lessens the chances of late frosts injuring the crop.

3. It insures clean, bright and glossy berries, making it easy to market them at top prices, and gives you a reputation for being the grower with clean fruit.

4. It holds moisture to be used by the plants during the ripening period, which is the time they need moisture most.

5. To these practical advantages is to be added the relief from all anxiety about your plants coming through the winter in good shape. Well-mulched plants always come out in splendid form in the spring.

The next important work is getting your land ready that you may wish to set to plants next spring. Cover this with well-rotted manure and spread it evenly over the ground. Measure up this strip of ground and find out how many plants it will require to set it, deciding on how far apart you want the rows, then count how many rows there will be. The length of

MEASURING BY STEPS

WE use this illustration to help those who are unacquainted with the methods of estimating the number of plants required for the plat of ground set aside for strawberries. First, step the ground off legtnhwise and figure on two plants to each step which would place the plants eighteen inches apart. This gives the number of plants to each row. Now, find out how many rows in the allotted space by stepping the width of the patch and count one row to each step, then multiply the number of rows by the number of plants required for each row, and you will know just how many plahts to order. If your space is limited. make the rows only two feet apart. which would make three rows to every two steps.

the rows and the distance apart your plants are to be set in the row will determine how many plants will be needed.

By the time you get all this work done the February issue of The Strawberry will have reached you, and will tell you just what is the important work to be done in that month. But remember, we shall not continue to send you The Strawberry unless you are a subscriber. Only one issue of the magazine will go to those who are not on our list.

Strawberries in Winter Time

SOME of the pleasures and profits of cultivating the strawberry in winter are told in Suburban Life for November by George E. Walsh, who, having to retire to the country in search of health, on advice of a friend took up the work of pot-growing of strawberries and cucumbers. Mr. Walsh secured fifty six-inch pots, took last spring's runners and set them in a soil composed of rich loam and sharp sand, to which he added liquid manure from time to time. Turning his sun parlor into a greenhouse he set to work in October to see what he could do. Mr. Walsh says:

"The front and lower shelves were filled with the pots of strawberry vines, and the back or top shelf and the extreme ends of the others were reserved for the cucumbers. It seemed like a queer combination, but my florist adviser remarked:

"'You'll have strawberries for flowers and cucumber vines for ferns.'"

"The strawberry vines experienced a little setback by being transplanted to the pots and I had to keep them in the shade for two weeks. Then they began to grow, and their leaves and stalks fairly pushed upward in the congenial warmth of the sun parlor. I found it necessary to graduate the light of the sun with shades, which I could pull down in the middle of the day. I arranged two sets of ordinary window shades. One was of light cheese cloth through which the sun's rays could penetrate feebly. These I used on ordinary warm, sunny days in winter. The other set of curtains were totally opaque, being made of dark green paper muslin. When they were pulled down, the room was cast into darkness. They were very useful in regulating the light in the sun parlor, and also in protecting the plants on very cold nights.

"Daily I watered the plants and seed beds, and spent many otherwise idle minutes in regulating the shades so that just the right amount of light should be distributed. The strawberry vines immediately upon recovering their slight indisposition due to transplanting began to spread and send runners out in every direction. These I checked by pinching back, and the compressed vigor of the plants was directed to the formation of leaf and bud stalks. Within a month the bud stalks were half an inch high, and within six weeks they stood on a level with the tallest leaves. Then they proceeded to unfurl their heads, and by December fifteenth I had strawberry blossoms. These little star-like white blossoms with their yellow centers were welcome visitors in the middle of a severe snow storm which raged for three days.

Mr. Walsh sold three dozen of his cucumbers for three dollars a dozen and the rest of the crop was sold at from two to five dollars a dozen. He continues: "As for strawberries, we did not expect at first to sell any, but when the fifty pots began to produce, the yield was too promising to supply the home market. So we made arrangements to dispose of the surplus. The strawberries were so large that the common garden berries would be ashamed to belong to the same class. A dozen would fill a box, which, by the way, in winter, passes for a quart box, although it holds about a pint. My crop was small, so I was told, but we soldfifty boxes from the pots and netted in seventy-five dollars, as we averaged one dollar and one-half a box. Strawberries were quoted as high as $5.00 a box that winter, but I never received these fancy prices. The highest I got for my lot was half that on a special wedding order for a dozen."

The Story of the Senator Dunlap Strawberry

By Its Originator, J. R. Reasoner

I HAVE been asked by the editors of The Strawberry to give a brief statement of the experiments by which the Senator Dunlap strawberry was originated. I cheerfully comply with the request.

About twenty years ago, as a means of recreation, I commenced a series of experiments with a view to producing a strawberry which should have a combination of the most desirable qualities of the best varieties of that day; and if possible, to make some improvement upon them in every particular.

Being a Methodist preacher and obliged to move every three years—or perhaps oftener—the operations must be confined to a small part of a small parsonage lot. Some of the leading varieties were secured; several seasons were employed in studying their individual characters before the breeding process commenced. The experiments were embellished by several little episodes. One season all the little seeds which had been carefully gathered were destroyed by vermin and insects. Another year, the berries for seeds were carefully stored on a shelf, properly labeled. Some innocent children who discovered, and wanted the boxes, emptied them all out. Some very good friends advised me not to "monkey with experiments," but the work went on.

The plants were grouped and mated according to desired results, believing:—

1. That self-fertilized blossoms—that is, blossoms fertilized by their own pollen—if of a bisexual character, or another blossom from the same plant, or from plants of the same variety, are most likely to produce a progeny of the same type of the parent, but inferior. Or in other words, if marked beneficial results are to be obtained, "in-breeding" must be avoided.

2. That most, if not all plants, have a tronger affinity for the pollen from another variety than their own.

3. That to introduce a desirable quality into a plant which is deficient in that particular, it is necessary to transfuse the blood from a plant having that quality.

In that series of experiments, no hand pollenation was practiced. As Nature and the insects were the lowest bidders, the contract for that part of the work was awarded to them.

As all of my records were burned, I am obliged to depend upon memory for everything connected with the work.

The berries for seed were gathered from the different plants and groups, and their seeds all sown in the same bed, and for that reason the experiment was of much less scientific value. It is very unfortunate, from a scientific point of

J. R. REASONER

view, that we are not able to write up the pedigree of the Dunlap with absolute certainty, but its excellence of character will help to atone for that discrepancy. Its parentage will probably be forever a matter of speculation. Experiments are now in progress which may assist in our conjectures. In the same bed of seedlings from which the Dunlap came there were four other plants whose foliage and fruit appeared to be almost identical with No. 1 (Dunlap).

The plants selected for this experiment, as I now remember, were Cumberland, Crescent, Windsor, Sucker-State, Bubach, Jessie May-Chief (Glendale), and perhaps one or two other varieties.

The Cumberland was taken as the standard, and main breeder. With it were grouped in close proximity Crescent, Sucker-State and Windsor.

Many persons have supposed the Dunlap to be a seedling of the Warfield. By some accident or mishap there were no Warfield plants in that experiment. I do not think there was then a Warfield plant within five miles. The supposition that Warfield was the parent is untenable.

In our conjectures the parentage of No. 1 has lain between some two plants of four varieties, which under several combinations were planted in the same plot, viz: Cumberland, Sucker-State, Windsor and Crescent. The plant which I bought for Sucker-State produced a dark red berry, with glossy neck, and in some respects similar to Warfield. The glossy neck, and deep red of the Dunlap would seem to favor the Sucker-State for one of the parents. The other side must be assigned to either Cumberland or Windsor. Crescent, fertilized by Cumberland in such a way as to leave but little doubt, has produced plants and fruit with strong resemblance to Dunlap. As Windsor and Sucker-State probably are both extinct, it would be impossible to repeat the experiment.

No. 1, with several other seedlings, was sent to several experiment stations, and in several instances to private parties, under pledges and restrictions. Several of them abused the privilege. As it was purely a matter of honor, I was obliged to make the best of it.

About ten years ago a tract of land adjoining the University Experiment grounds at Urbana, Ill., was secured, to which all of the work was transferred, and operations commenced in a more orderly way. Dr. Burrill, Prof. Blair and others from the University were frequent visitors to the trial plots for the purpose of studying the character of the seedlings. They watched No. 1 carefully for four consecutive seasons, and decided that its character would warrant its introduction. The Illinois State Horticultural board met upon the grounds during the fruiting season, when No. 1 was at its best, and decided that it should be introduced.

Families sometimes find that one of the most difficult things to do is to find names which are good enough for their children. A patriotic colored family in Virginia, is reported to have named one of their young kids Georgewashingtonthomasjeffersonandrewjackson. It was said that the name was too much for the boy, and that he soon died. One of the difficult things that confronted us was to find a name for No. 1. We knew full well that the pomological society could never be able to spell out or appreciate such a combination of distinguished names as the colored boy received. A list of all the names proposed would be amusing. With the advice of the members of the Horticultural board (during the absence of its president, Hon. A. M. Dunlap) it was decided to name it "Senator Dunlap". Many protests came from pomologists for giving it a double name. Some said leave off Senator and call it "Dunlap"; others said, call it "Senator." They may have feared that it would behave badly and disgrace Mr. Dunlap. But if we should call it Senator the odium could very easily be shifted to some other Senator. Mr. Augustine, of Normal, Illinois, is largely responsible for the full name. He was inflexible in saying, "call it Senator Dunlap." I have not learned of any charges for "heresy" having been preferred against Mr. Augustine by the pomological society. Notwithstanding

the protests the name "sticks", and we believe the plant will hold its place in horticulture as Hon. H M. Dunlap is destined to do amongst broad-minded men and patriotic citizens.

So many untried and worthless plants had been put out under a great flourish of trumpets that producers had become suspicious of any new thing. Martin Miller, of Blue Mound, Illinois, had tried it three years by the side of the best standard varieties. He gave it high commendation, pronouncing it ahead of all others. Proposals were made to several commercial growers for the introduction of the new candidate for public favor, but most of them offered very discouraging inducements. I had fruited it six years and knew what it would do on my soil, but was not certain of its behavior elsewhere. Most of those who received it on trial either neglected it or failed to report. Finally, however, one strawberry plant grower decided to stand as godfather to the infant, and it was put into his hands for introduction. It has required seven years for it to work its way to the public favor which has been awarded it. It has some short-comings and some over-steppings, but as Goldsmith said of the faults of the village parson, most of them "lean to virtue's side".

My experiments in plant-breeding are not so elaborate as those of some others, but we are always glad to welcome visitors who come to inspect our seedlings. I allow no plant to go out for introduction until it has been thoroughly tested for at least four years. My aim is to know, as far as possible, what the plant will do under all kinds of conditions. It is worse than folly knowingly to throw upon the market a variety which has not some point of excellence above anything already there.

Urbana, Ill., Nov. 17, 1905.

Electrical Experiments With Plants

ONE of the great delights of the horticulturist is found in the infinite variety of interesting fields of exploration and experimentation which never disappoint one if the work be carried on with patience and intelligence. No student of the skies, who looks through the towering telescope upon the magnificent procession of the stars, finds greater satisfaction in his calling than does the devoted student of plant life, with its myriad variations, its complex combinations and undreamed possibilities.

Recently an English scientific gardener has been conducting some interesting experiments with electricity, and among the lines of work undertaken was the application of electrical treatment to something more than a thousand square yards of strawberries. Of this particular branch of his experiments this gardener, C. J. Newman, of Bristol, reports that the increase in yield was remarkable, and says that he cannot account for the increase in any other way than because of the free use of electricity. He says: "A far greater number of runners have been produced from the electrified than from the unelectrified plots. The current was first put on March 24. All plants flowered together, and there was no marked acceleration of the ripening of the berries. Whether the increased weight was due to a larger number or a greater size of the berries per plant I cannot say. I am inclined to think both causes operated, the latter rather more than the former."

The net results of his experiment show an increased yield over the ordinary of 36 per cent of old strawberry plants, and of 80 per cent of first-year plants. Mr. Newman says that the electrical part of the installation throughout gave little trouble, being comparatively easy to manage, though some care in keeping the wires clear of cobwebs, odd tendrils, shoots, etc., was necessary.

Who may foresee the possibilities which this experiment suggests? And there are others containing as great promise of results. We would wish that every reader of The Strawberry might become an experimenter on his own account, not with electricity, perhaps, but along simple lines of selection and cultivation. The pleasure he would find in it, and the possible profits as well, are indeed alluring to the nature lover.

QUALITY counts in strawberry production quite as much as in other lines, sometimes vastly more. We came across an instance illustrating this in an exchange recently. The narrator resides at Reading, Mass., a well-known center of strawberry production, where the growers take pride in putting only the best on the market. He writes: "When ordinary berries have been selling in Boston as low as ten cents a box, some of the Reading berries have been sold as high as twenty-five and thirty-five cents a box, consequently it has paid the farmers here to devote as much time as they can in developing the strawberry to a degree of perfection which has met the highest competitor, going into the largest markets and practically selling at their own price." That's worth thinking over.

THE HOME OF "THE STRAWBERRY"

MR. BEATTY ADDRESSING A GROUP OF STRAWBERRY GROWERS AT DURANT, MISS.

Among the Mississippi Strawberry Growers

By Frank E. Beatty

ONE day in early October there came to us the Macedonian cry, "Come and help us," from a group of commercial strawberry growers at Durant, Mississippi, and as soon as possible thereafter I responded to that call, and went down to see what it was that our friends had said was destroying the fields that had yielded them such rich harvests of berries for several years. At Chicago an official of the Illinois Central railway expressed to me the concern his company felt that the destructive visitation be investigated, its nature discovered and, if possible, the trouble removed. At Champaign I stopped off for an interview with Prof. S. A. Forbes, the eminent entomologist, whose researches, explorations and publications in that field have placed him in the front rank in his profession. It was my pleasure also to discuss general horticultural matters with Prof. John W. Lloyd, and to confer with Prof. C. G. Hopkins on matters relating to soils and fertilizers, than whom no man in the United States better is fitted to speak with authority. None may visit this great University, with its splendid agricultural and engineering departments training bright young men for careers along technical lines, without a higher estimate of the meaning of education and the necessity of just such training if the young man of the future is to attain highest success.

ADJOINING the University farm are the experimental grounds of Rev. J. R. Reasoner, the originator of the Senator Dunlap strawberry, and a horticulturist of large learning and experience. I had known Mr. Reasoner some years and had experienced before the cordial hospitality with which he welcomes everyone interested in the strawberry, but never before had I been privileged to inspect the work he is carrying forward on his place at Urbana. Space forbids any details of this visit and its discoveries; suffice it to say that he is doing a great work there in the interest of the strawberry.

THE following day I reached Durant, where I was met by Elmer Morgan, secretary of the Strawberry Growers' Association of that place, and soon thereafter we were in the infested area, searching for the cause of the serious mischief that threatened to devastate these broad and splendid fruit fields. Ten minutes was all the time required to discover it, and knowing the cause the remedy was not difficult to determine. Down in the crown of the plants were large numbers of aphides. These are a small green louse that saps the juices from the roots and tenderer parts of the plants. In dry, hot weather these lice are carried to the lower parts of the roots by black ants, and while the lice drain the roots of their juices, the ants suck the lice, thus keeping the latter hungry and willing to work. Entomologists have dubbed these lice the the black ant's cow because of the habit of the ant thus to get its sweets of the plants vicariously.

ANOTHER cause of serious trouble was the beetle, which I found in large numbers in many of the fields visited. These pests eat little holes in the leaves of the plants, leaving them with veil-like perforations, while their larvæ feed upon the roots of the plants. Beetles readily may be driven out by the generous and persistent use of Paris green, and by destroying the beetles we shall soon be rid of the larvæ. The louse, being a sucking insect, may be utterly routed by spraying with kerosene emulsion, and by dipping the roots of the plants in a strong tobacco tea just before setting them out. This treatment destroys the eggs of the lice, if there be any on the roots, and serves both as a preventive and cure. With so strong an organization as the association at Durant behind the movement, I have no doubt that the growers there will soon be rid of these enemies and that what appeared to threaten the very existence of the commercial growing of strawberries in that section will soon be a matter of history. Of this association W. M. Smith is president, and Elmer Morgan is secretary and treasurer.

HOW great was the interest in this investigation and its results I had occasion to realize in a very pleasant way. Who has come into the South and enjoyed its warm and generous hospitality but will understand the manner of my kindly reception there? And after it was definitely understood that the seat of the trouble had been located and the remedy for the disease was practically assured, the strawberry growers from near and far began pouring into the enterprising little city, and it became necessary for me to go from field to field, to the number at least of twenty, talking to groups of interested auditors, sometimes to few, frequently to many. And how the questions poured out in one ceaseless torrent from the lips of those so vitally interested in all that relates to successful strawberry culture! For three days I went over the fields talking and explaining and giving the listeners the best I could out of my own experience in strawberry culture. A local photographer caught with his camera one of these groups, and it is shown herewith. Finally on Saturday there was a meeting in the town hall—not a big auditorium to be sure, but it was packed by an inspiring audience, who listened eagerly to all that was said upon the subject. This meeting was held in the afternoon, and

was given up to answering all sorts of questions relating to better methods in plant selection, soil preparation and cultivation.

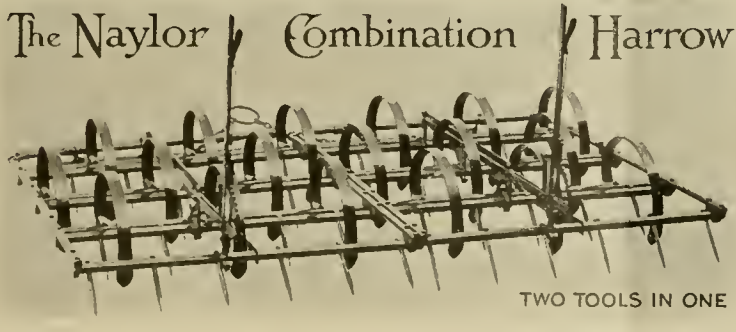
One thing that was brought out very clearly by the trouble experienced with lice and beetles at Durant was the fact that where growers had taken special pains in selecting their plants from young healthy beds and had employed modern methods in cultivating them—in fields where such plants and such cultivation were the rule, they were comparatively free from the insect pests that were ravaging their neighbors' fields in which plants taken from old, run-out and infested fields were used.

BEFORE retracing my steps to the North I visited the Mississippi Experimens station at Starksville, upon invitation of Prof. A. B. McKay, horticulturist of the station and college, and a most enthusiastic friend of the strawberry, in the interest of which he is carrying forward some extensive and very important experiments. This college and station has a splendid plant and is a growing institution. With the rapid strides of the people of the South toward a more rational agr culture—away from cotton and corn and toward the diversification of products—has come a new spirit of progress, and education all along the line is "looking up" in more ways than one. I had the pleasure of meeting here also Prof. G. W. Herrick, entomologist of the station, who is greatly interested in the work being done at Durant for the eradication of the destructive beetle and louse. I cannot forbear referring to the royal hospitality that met me at the college and to express my appreciation of the uniform kindness shown me both there and by the courteous people of the city of Durant.

THE strawberry industry of the South is becoming something immense beyond realization. The little city of Durant alone ships 150 carloads a year, and what is true of Durant also is true of a large number of towns in every state from North Carolina on the Atlantic to Texas in the distant Southwest. One fact in this connection is to be noted as particularly gratifying, namely, that the increasing output below Mason and Dixon's line does not injuriously affect a single Northern producer. Indeed, it is a fair question if the increasing production of the South does not actually serve as an appetizer for the Northern berry. Certainly, the increasing demand all through the North justifies the belief that this is so.

And I found down here that big fields kept up the yield to high averages. You often hear it said that a man might grow a big lot of strawberries on a small piece of ground, but when he came to plant out a large area the figures per acre diminished. This has not been found to be the case in the section I visited. My friend Sam Wherry of Durant—I say my friend, for no one could know him without feeling that he was a friend indeed—one season sold over $10,000 worth of berries from his sixteen-acre field, and his neighbor, Mr. Wellhouser, cleared $500 per acre from his field, the exact dimensions of which have slipped my mind. It is unnecessary to multiply instances; one finds them everywhere—if good plants have been set out and right cultural methods followed.

The Naylor Combination Harrow



TWO TOOLS IN ONE

THE best harrow on earth because it puts the soil in ideal condition at less cost than any other. Once over the ground with the Naylor Combination will prepare the soil in much better condition than twice working with any other, and it is easily drawn by two horses. ¶ The spring teeth dig deep down, thoroughly mixing the soil; the spike teeth pulverize and level the soil, and leave it a perfect seed bed. Each harrow has eighteen spring teeth and forty-two spike teeth. Two levers enable the operator to adjust the teeth to any desired position. Just the thing for orchards and berry farms.

In the fall of 1905 the Naylor Harrow was severely tested on 23 of the best farms in St. Joseph county, Mich., and 22 of these farmers purchased them---a record unequalled by any other harrow

Don't buy a harrow until you know all about THE NAYLOR COMBINATION. Write me today and I will tell you all about it

FRANK R. FISHER, Box 5, MOOREPARK, MICH.

The Young Man's Opportunity

THE door of opportunity swings wide open to the young man who loves nature, has the courage to fit himself for a horticultural career and enters upon strawberry production in a commercial way. Indeed, we know of no other field more tempting to the man who has it in him to win success through the use of mind and muscle.

Look at the vast increase in strawberry production during the last few years. Wiseacres shook their heads when this movement began a few years ago, and declared that the markets would be oversupplied. The South began shipping by hundreds of carloads; this quickly was increased to as many thousands of carloads, but there was no diminution in the demand. The bigger the supply the stronger the demand for more, and although there are in this country today, perhaps, ten acres of strawberries for every one in existence a decade ago, there is no doubt, if the present area was doubled within one year, the entire product would be consumed and there would be no visible reduction in price. What other line of business could stand such an increase in production and maintain prices?

Horticulture is not only a fine business; it is a calling that gives free rein to the widest culture and the keenest business judgment. Look about you and you will see that the men who are making the large successes in strawberry culture are those who have, in the first place, mastered the details of the business "from the ground up," and then expanded their "plants" and trade year by year, winning by their own energies and insight that success which never fails to give satisfaction as well as profit.

The young man who engages in strawberry culture is truly independent; he is master of his own career. He enjoys out-of-doors, the health-giving contact with Mother Earth; no "pent-up Utica confines his powers," the whole range of land and sky is his. His work is a safe one; little fear need he have of loss, almost none of failure; for the strawberry is a hardy plant, and seldom disappoints him who knows its nature and satisfies its needs. He has an unlimited market for his berries if he has seen to it that his product is of the high quality that always is in demand. His calling is not an enslaving one; it gives him time to think, to study, to read, to travel. And it always invites him to still further experi-

ment, to still greater heights of excellence in method and product. It is a growing profession; that is, the man who makes it his life-work grows in physical, mental and moral stature under its kindly influences. We have said it is a great business chance; it is more, it is a school for the development of manhood in the highest and best sense of that word

Mulches and Mulching

WHEN shall I mulch? How shall I mulch? With what materials may I mulch? These are three questions that come to us each autumn by the hundreds in endless variety of form, and the questioners represent every section of this great continent of ours. They are timely and important inquiries, and much depends upon the way they are answered in the actual experience of strawberry growers.

PUTTING THE PLANTS UNDER THEIR WINTER COVERING—APPLYING COARSE STABLE MANURE

As to the time of mulching, of course one must be guided by his climate. Let us first consider the South. There mulching is done only to hold the moisture in the soil and to keep the fruit clean, and there mulching should be done before the buds open, the best results being secured where the work is done about eight weeks before picking time. And the way mulching should be done is quite different in the South from the methods which are followed farther away from the equator. In the South freezing and thawing, which is so severe upon plant life in the North, is unknown, therefore, the plant itself is better left out in the open. Indeed, it would be little short of fatal to cover up the plant in the South, as its breathing organs never are at rest, for in the South the plants grow the year round, and to cover them would be to smother and bleach them and seriously check their growth and fruiting power. Only the dormant plant can retain life without air. Therefore, in the South the mulch should be applied only between the rows, leaving the plants free to air and sun, so essential to their health and vigor,

In that lovely midland country, which lies between the North and South; where freezing occurs to a depth of from two to three inches only, a light covering, both over and between the rows should be used. Shade the foliage just enough to prevent thawing on bright winter days.

In the cold North, where winter means frosty days and nights for many weeks, and where the soil is frozen from six inches to a much greater depth, mulching should be done heavily both over and between the rows. Under these conditions plants will hibernate in comfort, free from the heaving caused by alternating freeze and thaw, and they will come out in the spring, strong and vigorous, ready to put forth foliage and fruit to the pleasure and profit of the husbandman. Here the mulch should be applied following the first light freezing.

But we are reminded, even as we write, that there is still another section of our country to be considered in this connection, for here comes a letter from one of our women strawberry culturists at Cestos, Oklahoma, and asks: "Would it do to mulch the plants all the time to keep them moist? Potatoes do well here treated in that way." Well, what would do for the potato might not be the thing for the strawberry; for the latter propagates and perpetuates the family life, as it were, by runners, and these must have room in which to develop. If the space between the rows were completely filled with mulch this could scarcely be done. However, as the inquirer resides in a land where the moisture is so far below the surface that cultivation and the maintenance of a dust mulch would not serve to hold sufficient moisture in the soil for the sustenance of the plants, it may be well to mulch as thoroughly as may be. Of course, the mulch must not be put over the plants themselves at all, but it might be spread between the rows and, when the runners start, clear away the straw and set the new nodes down into the earth so that they may take root. With such attention as this, the strawberry may do as well as the tuber under a perpetual mulch. It is worth experimenting with out in that land of sunshine and scant rainfall, at any rate.

The list of materials that may be used with success in mulching is a long one and they vary greatly with the locality. In the South, where close protection from the weather need not be considered, the pine "straw", those long and shapely needles found everywhere in the piney woods of the region, make as fine a mulch as one might wish for. They are sweet and clean, and make an ideal resting place for the ripening berry. Doubtless the most satisfactory mulching material is strawy coarse manure, for this serves both as a mulch and a fertilizer. The plant food contained in the manure washes down and becomes available for the plants, and in the spring little is left save the dry litter which is raked into the rows for the growing berries to lie upon. Wheat straw is a prime favorite because it so easily is parted over the rows in the spring; oat straw is a close second, but does not lend itself quite so gracefully to the changing needs of the strawberry plants. Corn stalks, sorghum pomace, marsh hay or any coarse material of that order may be used with excellent results. One of our folks who grows strawberries up in Nova Scotia wrote us recently advising us that seaweed was being used by some of his neighbors as a mulch, and asked whether the salt it contained would be injurious to the plant or

Tree Protectors

75 cents per 100.
$5.00 per 1,000,

As valuable in summer against sun-scald, hot winds, etc., as they are in winter against cold and rabbits. Recommended by all leading Orchardists and Horticultural societies. Send for samples and testimonials. Do not wait until rabbits and mice ruin your trees. Write us today.

Wholesale Nursery Catalogue now ready. Send for copy. Agents wanted everywhere.

HART PIONEER NURSERIES,
Box 103. Fort Scott, Kan.

RAW FURS ONE MILLION WANTED!
Am authorized to pay fancy prices to fill European orders. Write for my special quotations. Address
A. E. BURKHARDT, International Fur Merchant B 53, Cincinnati, Ohio

BRINGING IN THE STRAW WITH WHICH TO MULCH THE PLANTS ON THE FARM HOME OF "THE STRAWBERRY"

berry. He was told that this was most improbable; and we do not see why seaweed in the maritime provinces of Canada and along our own coast, which may be had in limitless quantities by those who live beside the sea, should not be used as freely as are the needles that cover the ground in the great pine forests of the South.

We hope that all of our readers in the North have mulched their plants ere this, but should they have failed to do so, it is not yet too late to secure very important results by mulching at once. Indeed, it is not too late to get the very best results, as the season of alternate freezing and thawing is not yet here, and that it is which so severely tests the vitality of the strawberry plant.

From every point of view the mulching of the strawberry bed is of first importance. It protects from freezing and thawing, it aids to retain moisture in the soil, it adds to the richness of the earth—all these are important. But to the man who has berries to market the fact that the mulch has kept his fruit free from grit and sand and that they may be put before the fruit-hungry world in all their rich beauty of color, their flavor and fragrance undiminished by any "cleaning" process—to such a one the mulching of his strawberry bed is second only in importance to the bed itself, for upon it in large part depends the size of his profits and the measure of his success. Let the grower succeed never so well in producing a fine, healthy, highly colored, richly flavored berry, if he fail to put them on the market sweet and clean, he has failed at the crucial moment. Study the question of mulches and mulching, and do not fail, under any circumstance, to mulch your beds in the most approved manner, whether you have a patch in the corner of a city yard or broad acres given up to the culture and production of strawberries.

ONCE in a while we are reminded that the old superstition concerning the "full of the moon" still exerts an influence over certain minds. One patron writes that he would set his plants only when the moon is at the right stage; another urges the importance of observing the lunar phases if success is to be sure. As we set plants for six weeks continuously and have uniform success with them year aftet year, we agree with the scientists that the moon theory of planting and cultivating is a bugaboo that no longer should scare folk.

Starting a Farm on Little Capital

EVERY man possessed of ambition desires to be independent. In this age when free arable land is practically a thing of the past, it is more difficult to achieve this independence than it was a quarter of a century ago when our fathers pioneered the West. One of the most attractive features about the strawberry business is the fact that it may be begun and carried forward on a small tract of land and with very little capital. The enterprising young man who really has made up his mind to attain industrial liberty and manage his own business, will be sure to find in almost any community land owners glad to sell him on his own terms sufficient land to start a berry farm. One instance of this kind we have very good reason to remember. Fifteen years ago a young man in an Indiana town resolved that he would have a business of his own. He was without capital and without experience, but he was not without standing as a man of honor in his community, and when he reached the point where he was ready to do business he called upon an old German friend of his whose kindly face is shown herewith, who promptly sold him a tract of land on contract, the price being fixed at $100 an acre, and he started off in his career as a strawberry culturist.

MICHAEL MAYER
Covington, Ind.

The land was common pasture land, without a fruit tree or bush or roof of any kind upon it. The young man, knowing nothing of the work, made a bad start. He took his plants from a neighbor's fruiting bed, mostly pistillates and badly run out. The results of that first setting were consequently very small and very discouraging. The second season was little better, for he bought his plants of a grower who doesn't believe in breeding and selection; bought them because they were cheap. Thus three years were spent in getting a start which might have been accomplished in one. For at the end of the second year he had learned where to get plants and advice of the right sort, and from that day his success was rapid and large.

With his first crop of big red berries hope and ambition were revived, and he went to work with a will to make his farm the leader of its kind. A team was set to work hauling manure, plans were made for broad and graceful driveways and a pleasant lawn, and a handsome home was built, thus making the land more valuable and satifying the man from whom it was purchased that it was safe to renew notes as they matured.

Within five years from the day the young man took possession of this raw land, and notwithstanding his early mistakes, he had made his place the best and

most favorably known strawberry farm in the state, and was practically out of debt. He was able able to fix his own price for his product and orders for his berries flooded him by letters and by telegram, leading grocers and hotel men in the neighboring cities gladly paying him a premium for his berries—a premium which averaged five cents per quart above the market, and in one season reaching as high as eight cents. During the last five years he spent upon this farm he was unable to fill the orders that came unsolicited to him.

He attributes his success largely to the fact that early in his work he adopted a label that was placed upon each box guaranteeing that the berries in each were as large and as ripe and as good at the bottom as were those at the top. Another element in his success was the fact that his winters were spent in the study of soil, fertilizers, bacteria, insect enemies, and fungous pests, how plants feed, and every other subject relating to plant life. What he has done you may do.

Today this young man is recognized as an authority in all that pertains to strawberry culture. He believes that his greatest work is yet to be done as head instructor of our correspondence school of strawberry culture, and his name and face appear at the head of that department in this magazine. He intends that you shall not repeat the mistakes he made at the start—which resulted entirely from lack of information.

The Way to Pleasure and Profit

By Harriet J. Loring

ONE afternoon in June last I went out to gather the strawberries, expecting to get them all picked ready to send off to market that evening, and get myself ready to receive some visitors whom we expected that evening. But the big red berries kept filling basket after basket, and the company found me still picking.

I finished, however, and sent them off to customers, besides having more than all of us could eat over Sunday. Another day an acquaintance drove to the door, asking if she could get some strawberries. She wanted three pecks, and wanted some of them to take home with her. While she make a call on a neighbor, I picked five baskets for her to take home. It was then nearly four o'clock and I finished the rest of the order before dark, taking them to her in the evening.

Wasn't it fun to hear the exclamations of delight as she turned the luscious red fellows into a broad box to stay over night! And didn't it pay for the work it had cost? Yes, that little bed of two hundred plants paid a good profit, and the work is what any enterprise needs to make it pay. The history of my little venture in strawberry culture briefly is as follows:

FRUIT PACKAGES

Of Every Description

Leslie Boxes and Crates
Hallock Quart and Pint Boxes and Crates
Illinois Quart and Pint Boxes and Crates

Boxes

FOR APPLES, PEARS, MELONS, POTATOES and VEGETABLES

Leslie Crate and Boxes

Baskets

FOR PEACHES, PEARS, PLUMS, TOMATOES, MELONS, and GRAPES

Four-basket Crates for Peaches and Tomatoes
Six-basket Crates for Peaches

Special Prices to Associations and Users of Large Quantities

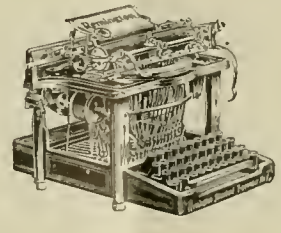
40-Page Catalogue FREE. Send for it.

So. Haven, Mich. **The Pierce-Williams Co.,** Jonesboro, Ark.

Remington Typewriter

WHEN THE REMINGTON TYPEWRITER offers something new to the public the public knows, without being told, that it's something good

NEW MODELS NOW READY



We will be glad to have you call at any of our offices and see the new models or send for illustrated booklet describing the new features

REMINGTON TYPEWRITER CO.,
28 LaFayette Boulevard.
Branches Everywhere. DETROIT, MICH.

In April, 1904, I set two hundred thoroughbred Clyde strawberry plants on well-dressed ground, making it about as rich as for corn, giving them clean culture during that season and until they began to bud in the spring of 1905. Then I watched the great green fellows swell and grow till they ripened. Then the fun began, coupled with the work necessary to rush them to market.

That little patch of ground yielded very gratifying profits, and when people learned the quality of my berries I had more orders than I could fill. I did nearly all of the hand work myself, and while it is hard work it is no harder and much more healthful than other kinds of work that women do.

East Otisfield. Maine.

THE AMERICAN MANURE SPREADER AT WORK ON "THE STRAWBERRY" FARMS

The Manure Spreader

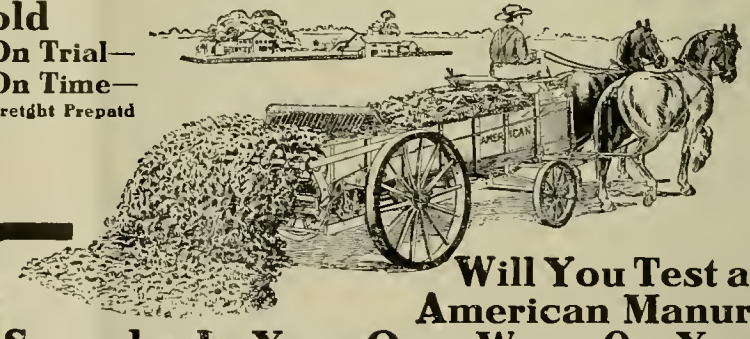
SOIL may be likened to a dish containing plant food, and the degree to which it is able to respond to the demands of the hungry plant is the measure of its productive capacity. Every man should know his soil, just as the successful stockman is familiar with the animals comprising his herds or flocks. Stockmen who do not understand the nature of their cows and sheep and hogs frequently waste incalculable amounts of feed. They overfeed, perhaps, or they feed that which the animal does not readily assimilate and turn into flesh or milk or muscle. So with our soils, we must study them well, and come to know their particular needs. The three principal elements of soil fertility are phosphorus, potassium and nitrogen. Where one or more of these elements are lacking crops will suffer to just the degree in which they are deficient. Study your soil, watch its performance in the way of crop production, learn its needs and fill the great dish generously with food supplies for the plants—a primary step to success.

Some soils that contain large quantities of fertility have it locked up so tightly in a compact mass that it is not available for the plant's use. Nothing will more effectively open up such soil and make its stores of food available than coarse manure, liberally applied. This will furnish humus, and humus warms up the soil by opening it to the air and sun, making it friable and amenable to the action of the roots of the plants. Loose soil requires smaller quantities and does better when given the perfectly decayed manure, all ready to yield its richness upon demand to waiting vegetation.

Nothing else will so quickly and so surely improve the mechanical condition of the soil as barnyard manure. This suggests the great value of this by-product of the farm. Yet because it is a by-product, the average farmer fails to realize the need of economy in its use. To get its full value it is essential that it be properly applied. And it has a cash value when so applied that has been found by some of the Experiment stations to reach as high as $3.25 a ton. But if it be improperly applied, much of this value is lost. For instance, as the manure can be of little value to the plants until it has been dissolved by moisture and taken up by the film which surrounds the soil grains, how wasteful it must be to throw great forksful haphazard over the field, piling it up here, leaving bare spaces there.

For years we scattered all manure from wagons, using a common fork.

Sold
On Trial—
On Time—
Freight Prepaid



Will You Test an American Manure Spreader In Your Own Way—On Your Own Farm—FREE—For A Month?

It's this way:

We have the largest manufacturing plant in the country, manufacturing Manure Spreaders.

We have ample capital—which enables us to sell them to American farmers on time.

We want to pay the freight on any sized Spreader you may choose from our catalogue, direct to your depot, and have you take it out and try it, as your own, in your own way, and on your own farm, free, for a full month, to see if it is as represented by us.

We don't ask for a penny advance payment—nor a deposit of any kind.

When you have tested the Spreader, if you find it as represented, you can pay us for it on time, which lets the Spreader pay for itself out of the profits it makes you. We know this is a liberal offer.

We realize we must have a *good* Spreader in order to sell it in this way. The American Manure Spreader is not a new machine.

It has been tried and tested, and is the Standard of all Spreaders in the country today.

There are more American Manure Spreaders being sold today than of any other kind.

* * * *

The reason why we have stopped selling the dealer and are selling to farmers direct is that we want to get in touch with the people who actually use the Spreaders.

We can in this way give you more information about the machine and how to use it; and enable you to get much more service out of it.

We can better advise you just the size and style of Spreader you should have for your purpose—we can furnish the Spreader that you need direct from our factory.

We make 9 styles and 5 sizes, and can furnish a machine that is exactly adapted to your requirements.

We are an independent concern and do not belong to the trust.

We invite you to write us, telling us how much land you own, and how many head of cattle, horses, sheep and hogs you have and we will tell you just the Spreader suited for your purpose, and give you Gov't statistics as to the annual value of your manure crop.

An American Manure Spreader is worth more money to you, year in and year out, than any other implement you can own such as binders, stackers, gas engine or plow, and it will pay you bigger dividends than any other implement on your farm.

Write today for our free catalogue and little booklet "Our New Selling-Plan."

AMERICAN HARROW CO., 4522 Hastings St., **Detroit, Mich.**

NOTE—19 Branch Houses, carrying a full line of Spreaders and parts, at leading cities in different states where prompt shipment can be made.

Under that method it required from thirty to thirty-five tons to cover an acre, but during the last three years we have done this work with a large manure spreader, and we have found that the saving has been fully 50 per cent, the amount required for one acre by the old way being amply sufficient for two when passed through the manure spreader. Not only does this save about $25 an acre, but the even distribution secured by the spreader gives much better results.

A good substantial spreader picks and tears the heavy and compact lumps of manure into fine particles and scatters it with perfect evenness. This gives a uniform quantity of plant food and produces a uniform stand of plants and yield of fruit. A good spreader costs anywhere from $100 to $175, according to its capacity, but it will prove to be a valuable investment to any tiller of the soil using large quantities of manure. Sometimes several berry growers will combine and install a spreader, taking it from one farm to the other until each grower has his barnyard cleaned and the manure properly distributed over his field. Our spreader has been in use for three years and has handled about 4,000 tons of Chicago stockyards manure, and as far as we can see is still as good as new.

Many of our friends who write that their supply of manure is insufficient doubtless would find the quantity at hand quite ample if they would use the spreader in its distribution. Considering its method of handling the manure itself and its great economy of labor, the manure spreader must be recognized as one of the most important aids to successful commercial strawberry production. If your business is hardly large enough to justify the necessary outlay for a spreader of your own, it will pay you to hire the use of one; or, if several growers are located in the same neighborhood, all might join together in its purchase and own it in common. The point we desire to urge, and with emphasis, is the necessity of a thorough distribution of the manure if your crop is to meet your just expectations and yield the largest possible profit.

One Amateur's Experience

By J. R. Murrie

REGARDING my experience as an amateur strawberry grower, I can only say that conditions were not altogether favorable for the highest success, yet results were all that we had right to expect. We did not get possession of the farm until the latter part of March, 1904, and by the time we had sent for and received the Kellogg catalogue and had ordered the plants it was late, the plants not reaching us until May 21. There were $15 worth of them, and they arrived at a time of severe drouth, when rain had not fallen for six weeks, and the ground was dry and hard.

I did not know the first thing about strawberry culture, but I followed the directions of the catalogue, and we cleared $130 from the patch, besides using all we needed for the table and for canning. This may not be a large showing, but considering all the circumstances, I am satisfied, especially as the prospects for a splendid crop next season are in the highest degree encouraging.

Gurnee, Ill.

A Family Strawberry Patch

FEW gardens are so small that some portion of them may not with profit and untold pleasure be given up to a strawberry bed sufficient to supply the entire "home" demand; perhaps grow enough of the delicious fruit to make some pin money for the girls or (and this has many times been done) enough to give the boys a college education. For no other thing in horticulture can be made to yield such large returns from a small area as the strawberry. Mark that carefully; it is a fact of large importance to the man or woman with little land at disposal, but who is determined to make the most of opportunities offered.

THE FAMILY GARDEN PATCH OF SAMUEL KARSHNER OF SCHOOLCRAFT, MICH.

Now is the time to plan the garden for 1906, and you should not fail to include in those plans a generous space for the strawberry. A very few plants, if properly set in a well-planned bed and given good care, will keep a family amply supplied with ripe, rich fruit the year 'round. Add a little more space, and you will be surprised to know how that neglected corner will turn into a producer of money.

Here are a few suggestions as to the way to go about it. First determine just how much space in the family garden you will give up to the strawberry bed, and be sure to give it all you can; then spread over this a light dressing of stable or chicken manure (it will be well to mix some earth with the latter before applying to the soil, as it is very heating). Then measure the length and breadth of the plot to learn how many plants will be required. If the bed be small, it will be well to set the plants but one foot apart in the row, and the rows two feet apart. The length and number of rows will determine just the number of plants required to set the plot. Four or five rows each one hundred feet long will produce at least 500 quarts of berries if they receive proper care; many of our friends are getting double this number from a patch of this size.

Just figure up and see what that tiny patch has done for you, if you have done your part. The patch described would be less than four square rods. Five hundred quarts at ten cents a quart would be $50.00. Can you use that space to any better advantage in any other way?

The principal reason why so many folks fail to grow their own supply of strawberries is that they think it requires a lot of hard work. Nothing else that will give anything like the returns strawberries yield can be named.

Then there are other things to be considered than the money side. Every member of the family finds delight in working in the strawberry patch, and it is a part of the home delightful to parents and children, and an important part of the home beautiful. It trains the boy to business habits, encourages him to undertake things "on his own hook," makes him careful as to details of expense and

income, careful to see that his fruit is picked and packed so as to top the market; it brirgs him into business contact with the world, teaching him those lessons of social and commercial equity that build up character and manhood.

And the girls—the well-ordered strawberry patch is just the place for them to develop a love for womanly independence and a way to attain it. Many of our members who have made the most notable successes are refined and cultured women whose strawberry beds are the delight of their eyes and the admiration of their neighbors.

You can't afford to be without your own strawberry patch, if you have only a back yard in the city to make it in. The Strawberry will tell you what to do and when to do it to make a big success of the home strawberry garden if you will try it. Each issue of the magazine will contain just the practical instruction needed for the month's work following its receipt. Let us hear from you, and let us help you. The Strawberry's mission is just that, and if its teachings shall be the means of stimulating interest in the home garden and of helping you to win success in the strawberry patch, it will have accomplished its purpose and served the world a good turn.

Success and Failure and Some Figures Showing Why

THE good book tells us, "There is that scattereth and yet increaseth, and there is that withholdeth more than is meet, but it tendeth to poverty" (Proverbs 11-24), and nowhere else is this experience and philosophy of life more frequently or clearly exemplified than in the strawberry field. We have in mind two friends of ours whose methods and whose results are so diametrically opposed; one standing for "that which scattereth and yet increaseth," the other so given to that order of withholding that "tendeth to poverty," that we shall use their experiences to illustrate some important lessons in our chosen field. In each case the strawberry beds cover four acres in extent—an area none too large for one intelligent, practical man to care for through the season.

Friend Simpson (that is not his name, but it will serve the purpose of this article) we have known for the past sixteen years, and we never yet have known him to fail to produce a good big crop of strawberries, no matter what the season. Some years were better than others, of course, for all the forces of nature conspire, some seasons, it appears, to retard and defeat, while in other seasons they combine to aid us in our work; but never a failure, or even a partial failure—always a fair return for time and labor and money that Simpson expended. We have taken one of his more modest seasons for a basis of comparison here, and the following table of receipts and expenditures are fairly representative of what we may call his "off" years.

Some Thoroughbreds in Minnesota

"Good Enough"

Is not Good Enough when it Comes to Strawberry Plants

Only the BEST Will Pay

That is why you should plant the KELLOGG strain of *Thoroughbred Pedigree Plants*

THEY ARE THE BEST

Because they are selected from Mother plants that have won the world's greatest fruiting record.

Because they have been scientifically sprayed, which insures you against destructive insects or fungous spores.

Because they are carefully mulched before freezing, insuring a well-callousod root and perfectly dormant plant. Every one of them will grow if properly set out.

Because they will produce more berries from one acre than two acres will grow from the "other kind."

You cannot afford to give up your valuable land and put a lot of hard work on poorly developed plants just because they are cheap. The cheapest plants are those which have a perfect balance in fruit and foliage—the kind that produce the big paying crops. If you want this kind of plants send your order at once to

R. M. Kellogg Co.,
Three Rivers, Michigan

The Patch and the Coop Naturally Go Together

EXPENDITURES

Value of land, $100 an acre, $400; interest at 6 per cent	$ 24
Manuring the land	60
Plowing, harrowing and rolling	12
High-grade plants, 7,000 to acre, 28,000 at $4 per M	112
Setting plants	20
One good man's wages for six months, steadily in the field, at $1.50 a day	216
Mulching	40
Parting mulch from over plants in spring	3
Cost of 1200 crates and boxes	198
Cost of picking	240
Cost of foreman over pickers, 50 days at $2 a day	100
Cost of packing 1,000 crates at 5 cents each	50
Cost of labels	5
Cost of pickers' tickets	2
	$1,082

RECEIPTS

Sale of 250 24-quart crates of fancy select berries per acre, or 1,000 from the four acres, at $3 per crate, less express and commission—60 cents a crate—net	$2,400
Sale of fifty crates to the acre of seconds, or 200 crates at $1.75 less express and commission—35 cents a crate net	280
Total receipts	$2,680
Total expenditures	1,082
Net returns from four acres	$1 598

It will be observed that the net returns here given are $399.50 an acre. Counting what Simpson used in his own household and those his generous hand disposed to friends and visitors, it is not too much to say a sufficient quantity of berries was produced to bring the net up to $410 an acre, while in his better years we have known him to net as high as $600 to the acre. You also will observe that while every detail of good cultural methods is practiced, there is no extravagance. Simpson manures rather heavily every year, the result being that his land always is in tip-top shape and fully prepared to grow big red fancy berries to the full capacity of the strong and vigorous plants to sustain them. Simpson's methods in other words, while conservative, are really ideal, and we could not do a better service to our readers than to urge them to follow them in their own work. Indeed it may be said that it is the mission of this journal to teach strawberry growers just how to put into actual practice the cultural methods of this most successful grower.

And the real test of Mr. Simpson's success, from the commercial point of view, lies in the fact that his uniformly clean and finely flavored berries, as well as the fact that he can be depended upon each season to supply the reasonable demands of his customers, have resulted in building up a trade peculiarly his own. Not only is it out of the question for a rival to take away that trade, but his patrons are glad to pay him a generous premium, and the commission men bid above the market every season in order to get his berries to handle. These circumstances are most suggestive, and we trust will be fully considered by our readers

A KALAMAZOO DIRECT TO YOU

WHY not *save money* in your stove and range buying?

Why not get a really *good* stove or range while you are about it?

Here's a Kalamazoo Royal Steel Range—one of the many of the Kalamazoo-direct-to-you family.

It is guaranteed, under a $20,000 bank bond to be *strictly high grade in every respect.*

The body is made of Wellsville blue polished steel—the highest grade steel procurable.

Not an ounce of scrap iron enters into it. The tops and centers are cut and braced in such a manner that we guarantee them against warping for *five years.*

The linings are heavy and the flues and all other parts where it is necessary are lined with *genuine* asbestos, held between two sheets of steel.

The oven is square and large, with a bottom that *cannot* warp or "buckle." The oven ventilation is *perfect*, making it a quick and even baker.

The oven is equipped with patented oven thermometer which gives perfect control of the oven's temperature and makes good baking and roasting an easy matter. It saves time, trouble, and fuel, and is guaranteed not to get out of order.

The hot water reservoir is large; is lined with white enamel and is easily removed for cleaning.

The fire box is equipped with either a duplex or a dock ash grate as desired, and either hard or soft coal or coke or wood may be used for fuel.

It is handsomely finished, all the ornamental parts being heavily nickeled. We do all our own nickel-plating, and *do it right.*

The riveting, the mounting, the finishing, are all done *by hand*, by expert workmen, and we guarantee that there is not a better designed, a better made, a better finished, or a more durable stove or range in the world, than is *the Kalamazoo.*

Oven Thermometer

Quality is our first consideration, and our 32 years experience in building and selling stoves and ranges has taught us *how* to make a range which we can put in comparison with any other in the world.

Quality should also be *your* first consideration. You cannot afford to buy a *poor* range at any price, especially—*and here's the point*—

When you can buy this high grade Kalamazoo—or any other of the Kalamazoo line of ranges, cook stoves, base burners and heating stoves of all kinds—*at a price lower than your dealer pays for stoves and ranges not the equal of the Kalamazoo.* Please read that again.

You get a Kalamazoo, *freight prepaid*, on a 360 days approval test, guaranteed under a $20,000 bank bond, with privilege of returning to us at any time within 360 days, if it shows any faults or defects—and all at a *less price* than your dealer pays for many stoves and ranges not nearly so good.

Here's the secret:

We are manufacturers—actual manufacturers and we sell to you *direct from our factory* at *lowest* factory prices, saving you all dealers', jobbers', agents', and middlemen's profits and commissions.

We have more than 50,000 customers in all parts of the United States. Their letters show that they have saved from $5 to $40 by buying a Kalamazoo direct from our factory.

We will be glad to send you the names of our customers in your vicinity. Let *them* tell you what *they* think.

The Kalamazoo line is *complete*—embracing ranges, cook stoves, base burners and heaters for fuel of all sorts, all of late design, handsome pattern and beautiful finish.

Send for our catalogue.

You will find in it the stove or range exactly suited to your purpose, and you will be able to purchase it at a money-saving price.

Don't you think it a proposition worth looking into? Let us send you our free catalogue and price list. You'll be interested and pleased.

Ask for Catalogue No. 348.

Please Remember:

We are actual manufacturers, not mail order dealers.
We have more than 50,000 customers—all satisfied.
You run no risk, as we give you a 360 days approval test.
We pay the freight.
We make you actual factory prices.
We sell you a stove or range not excelled by any in the world.

Kalamazoo Stove Co., Mfrs., Kalamazoo, Mich.

ARE TWO AND THREE INCHES LONG— BURBANK'S PHENOMENAL BERRIES

One will Fill a Cup. Dwarfs Giant Dewberry in Size and Excels Raspberry in Taste. How to Get Hardy Roots.

The leviathan of the berry world is the latest California wonder, Burbank's Phenomenal Berry. Mr. Burbank has said: "It is larger than the largest berry ever grown." To those who know the conservative nature of the man his statements as to size and quality are the best guarantee that could be given.

It is a cross between the California Dewberry and Cuthbert Raspberry.

In color and flavor the new fruit closely resembles—some say "excels"

It's the Best Berry in the world
—LUTHER BURBANK.

—its rich-hued raspberry parent.

Its liquid juiciness when pressed by the tongue surpasses the full-ripe dewberry in delicate consistency.

And most marvelous of all, to this toothsome fruit has been imparted a firmness which holds it in shipping conditions for days, making it one of the most practical berries for home or distant markets.

GROW IN HUGE CLUSTERS

The vines are inclined to trail. When properly supported, the berries are quickly and easily gathered. They grow in immense clusters of from five to ten huge berries, a sight to delight and amaze. No berry is so economical to pick.

We have grown a limited number of roots in our experiment gardens on Puget Sound, and can supply in quantities of one to one dozen.

The conditions under which these roots were grown insure that they are hardier and more robust than can be obtained from southern nurseries.

Use coupon in ordering. Price (prepaid) per root 35c; per doz. roots $3.

Order Now—The Supply is Limited.

LILLY'S KITCHEN-GARDEN COLLECTION OF BERRY BUSHES

Roots of 12 Standard Berries: 1 Logan Berry, 3 Raspberries, 2 Blackcaps, 2 Currants, 3 Blackberries, 1 Lucretia Dewberry, each one properly labeled, no two same variety. By express at your expense $1.00, prepaid $1.25. You can include one of the Phenomenal Berries at 25c when ordering this collection.

Plant Lilly's Seeds

FILL OUT AND MAIL TO

CHAS. H. LILLY CO.

Seattle
Portland San Francisco

Enclosed is $.....(in money order, draft, 2c stamps) for which send me (prepaid)..... Burbank's Phenomenal Berry Roots, and..... sets of Lilly's Kitchen-Garden collection of Berry Bushes [..... prepaid]

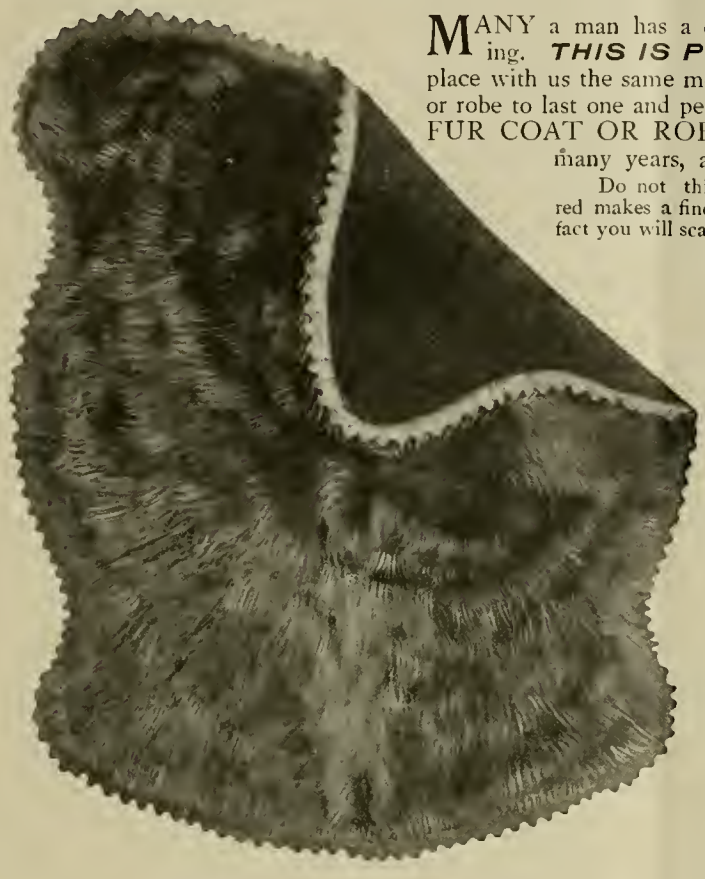
Please send me (free postpaid) your Plant and Seed Catalog.

Name .....

Address ..... AFI

Roots grown in Lilly's Puget Sound Experimental Gardens are extra hardy and robust. Packed in moss so can be shipped safely to any part of U. S., Canada or Mexico, and arrive in perfect condition ready for planting. C. H. Lilly & Co. are the largest seed and plant growers and dealers on the Pacific Coast.

Selling Hides to Butchers Poor Economy



MANY a man has a cow hide or a horse hide which he sells for almost nothing. ***THIS IS POOR ECONOMY.*** Let him send the hide to us, place with us the same money he spends in purchasing an ordinary cloth overcoat or robe to last one and perhaps two seasons, and we will manufacture for him a FUR COAT OR ROBE which we guarantee will not wet through, will last many years, and for durability and warmth cannot be equalled.

Do not think it is necessary to send us black hides; an even-colored red makes a fine robe; a horse hide makes a light robe—any color looks well. In fact you will scarcely recognize your red, brown, gray, spotted, white and brindle hides after they have been through our process and the hair thoroughly washed and scoured bright. Don't sell your hides to the butcher; you are practically giving away a coat, robe or handsome floor rug.

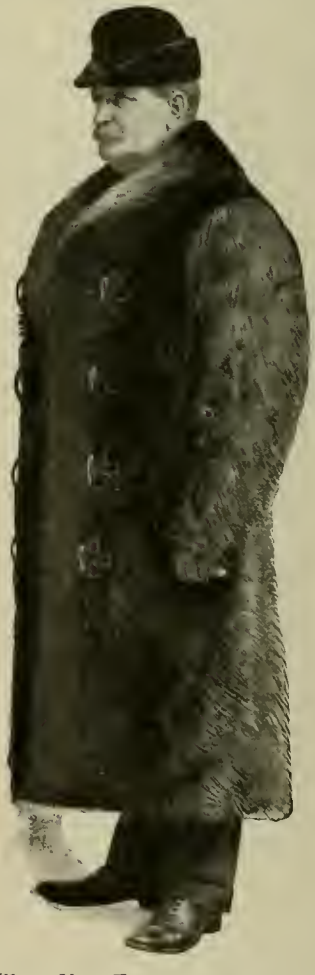
When You Furnish the Hide

WE can tan and manufacture a robe like this from a cow hide or a horse hide and make **FREE** a pair of Mittens from the trimmings. The robe will be soft and pliable, as warm as a Buffalo robe and lighter in weight; lined with the best green plush lining and heavy green felt border.

PRICES 40 lb. Hide and under $7.00 40 lb. Hide to 70 lb. $7.50
70 lb. Hide and over $8.00

We will Tan and Manufacture Your Hides and Skins into Anything Desired

Calf, Goat, Dog, Colt Skins, etc., are tanned by us and made into Floor Rugs with felt lining and fancy border at prices according to size of skins and linings desired. We make Mittens and Gloves from small skins at very reasonable prices and do all varieties of Mounting and Taxidermy work.



We furnish the Skins, Manufacture to Measure,

and Sell by Catalog

Our Guarantee:

We guarantee that the hides we tan and the garments we make, either from the hides you furnish us or from our own, will be soft and pliable and will never get hard; will be moth proof, water proof and more nearly cold proof than any other goods upon the market.

Galloway Coats, Robes

Mittens, Gloves

FUR LINED COATS and OTHER FURS

OUR Customers are Farmers, Physicians, Automobilists and others of this class who desire fit, warmth, appearance and durability. Our fur coats and robes are not made from pieces, but cut to your measure out of whole hides.

To Our Readers and Patrons:

We are intimately acquainted with the National Fur and Tanning Co.; its management, the quality of its own goods and the character of the work it turns out for others. We can most highly recommend its product and the honesty of its management.

THE KELLOGG PUBLISHING CO.

When You Furnish the Hide

WE can tan and manufacture for you a coat like this from two small hides or from one large hide, lined with the best padded and quilted satin body lining; Lusterine or "Iron Cloth" sleeve lining, edges of coat bound with Mohair Braid; black Ebony Olives and Mohair Cord Olive Fastenings; leather shields at arm holes and patent Wind Protectors at wrist.

PRICES

Ladies' or Gents' Long Coat	-	$11.00
Ladies' or Gents' Short Coat	-	9.50
Children's (Boy or Girl)	-	9.00

WRITE FOR OUR FORTY PAGE CATALOG

The National Fur & Tanning Company

Three Rivers, Michigan.

who are seeking for a business that they may depend upon at all times to yield them a living and perhaps something more.

It is not a pleasant thing to do to turn from the contemplation of such a case to that of our friend Bunker, who, instead of following the intensive methods of Simpson, has a hit-or-miss plan of his own, with results very like those described in the story of the Irishman's flea —only Bunker never has the pleasure of seeing anything in the way of profits. But the lesson is an important one, and should serve a good purpose. Bunker doesn't keep any books, and so we have found it difficult to get a clear statement of receipts and expenditures from him, such as Simpson was able to give us without a moment's hesitation; but after questioning Bunker and getting a few actual figures as to what he had done, and some of his reasons for not doing others, we have cast up the following table, which is a fairly faithful exhibit of his receipts and expenditures:

EXPENDITURES

Value of land, $100 an acre, $400; interest at 6 per cent	$ 24
Manuring, none; wanted to hold down expenses	----
Plowing and harrowing (no rolling was done)	6
7,000 plants taken from an old bed; digging cost about 50 cents per M	14
Setting plants on the "live-or-die" plan	10
One man's wages on half-time	108
Mulching; thought it cost too much	----
Cost of crates and boxes	80
Cost of picking	120
Cost of foreman; thought it a useless expense	----
Cost of packing; let the pickers' work stand	
Cost of labels; never used labels; money spent for nothing	----
Cost of pickers' tickets	1
	$ 363

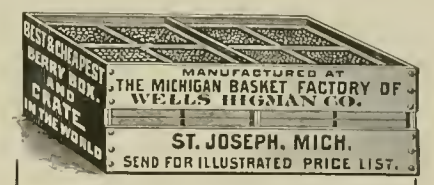
RECEIPTS

Sale of 500 crates second-grade berries (of course he had no fancys) at $1.50 a crate, less express and commission, 30 cents a crate	600
Expenditures	363
Net returns from four acres	$ 247

But even that table doesn't tell all of the story of failure and loss. Bunker's splendid land, one of nature's rarest gifts to man, steadily is "running out" of plant food and each season the weed crop takes a larger share of it. So that his capital is becoming impaired. Another thing the table does not show is the dreadful condition of his fields at picking time as a result of having no foreman. Compared with Simpson's splendid crop Bunker's is pitifully meagre; but even that is not garnered, for the pickers, working in the field with no watchful eye over them, gather only what they choose, eat the best themselves and trample bushels into the ground that might have added somewhat to Bunker's limited yield.

Consider this contrast. Land equally as good at the beginning of their respective enterprises; every opportunity Bunker's that had invited Simpson into the field. The bright warm sun that painted the rosy cheek and distilled the sweet flavors of the strawberry shone alike on both; the "gentle dews of heaven fell alike" upon these fields, so unlike in appearance and so different in results. Simpson, with ample time at his disposal, having a good man at the cultural end and a foreman over pickers who sees to it that everything is right in that department, is free to look after his customers and to see that nothing leaves the packing house that is not worthy of the label he has made of such high value in the markets. Poor Bunker, here, there, everywhere, in his nervous haste, rushing about like a hen without a head, really sees nothing and has no idea of what actually is going on, reaches the end of the season worn out and utterly discouraged, his "net" returns really representing a loss.

You will observe that Bunker "saved" at a great many points. But it was the saving that "tendeth to poverty." Simpson paid with generous conservatism for those things he knew were necessary for the success of his work—it was the "scattering that increaseth." Bunker kept his eye forever on the expense account; Simpson was looking for results, was working for results, and he accomplished results. These are in truth typical cases. We can show you many Bunkers who might be transformed into Simpsons would they but stop and consider a few simple facts, study their own situation, and seek to perfect themselves in their


BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT
THE MICHIGAN BASKET FACTORY OF
WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

HEADQUARTERS FOR

Berry Boxes

PEACH AND GRAPE

BASKETS

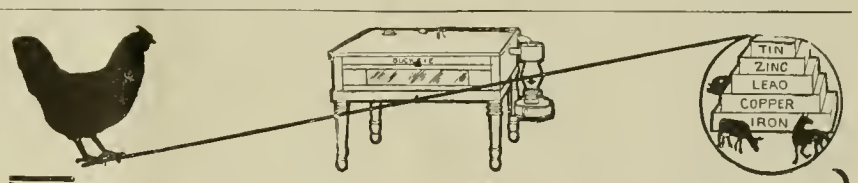
Established in 1869

Experience Counts

To obtain highest prices for your fruits ship in our packages

Illustrated Price List Free

Wells-Higman Co., ST. JOSEPH, MICH.



THE AMERICAN HEN OUTWEIGHS THEM ALL. STATISTICS PROVE IT.

Get a Buckeye on **FORTY DAYS TRIAL.** As low as **$5,** or 200 egg size, **$12.75,** or RENT one at **$1** per month. Let rent pay for it, *we paying freight,* or buy *parts* and *plans* and *build one.* They are self regulating. Guaranteed best work and material, and to hatch every hatchable egg. A town lot is large enough for the business, but a farm is better. Everything the poultryman needs of Best Quality and at Lowest Prices.

A 6 ft. by 3 ft. Iron Roof Colony House, complete, for $5.75. Foods with no Grit in them. A 25c package Buckeye Chick Starter will save you dollars.

Catalogue Free. BUCKEYE INCUBATOR CO., Box 40. SPRINGFIELD, OHIO.

Water In Your Country Home.

You may have a **City Water Supply** in your home if you have

A KEWANEE PNEUMATIC TANK

In your cellar or buried in the ground. Water from your well or cistern delivered to all parts of the house, barn or grounds by air pressure. Will last a lifetime. No water bills to pay. Gives splendid **fire protection.** Fresh, healthful water at all seasons. No freezing or leaking.

Especially valuable for irrigating strawberry beds, and for watering gardens, lawns, etc.

The above illustration shows the home of Mr. E. T. Crawford, Augusta, Ohio. He writes: **"I have a 'Kewanee' water system which is equal to any city water works."** There are over 4,000 other Kewanee outfits giving entire satisfaction. Write for illustrated catalog No. 15—free if you mention this paper.

KEWANEE WATER SUPPLY CO., Drawer R, KEWANEE, ILL.

calling. And there are others who never fall to the Bunker level, yet come far short of their possibilities.

We have taken up this work to help everybody who grows strawberries reach the higher altitudes of success, to find pleasure and profit in this most engaging horticultural pursuit, in which there are fewer risks and more opportunities for splendid achievement than in any calling, requiring the same amount of capital and experience, with which we are acquainted.

Can you give us any reason why you should follow the Bunker plan? Why not join our progressive movement and became a Simpson?

Good Work for Women

By Mrs. May Moyer

OFTEN have I wondered how many women there are who grow strawberries. I for one enjoy the work very much. It is a little hard sometimes, but it gives one a change from housework, an I think it is healthful to work out of doors; I mean to do a little each day as you can.

My husband prepares the ground, manuring, plowing, etc., then I set my plants. I get thoroughbred pedigree plants, as I know they are the best for big berries and lots of them. I have the rows three feet apart and set the plants twenty to twenty-four inches in the row, set them deep, keeping roots straight and am sure that the crowns are above the surface when set. Then I have them cultivated the same day to keep the moisture down. They seem to grow better and faster.

I have them cultivated after each rain when the surface begins to look dry. We keep them growing in this way, cuting off all runners as fast as they appear until after the middle of July.

I grow three varieties—extra early, August Luther, early, Warfield and Bederwood in equal number, setting them in alternate rows. These I grow in double hedge rows by allowing each mother plant to make four runners, layering them in X fashion. The late variety I grow in single hedge row; the mother plants sending only two runners, one each way. After I get them layered this way, I keep the new runners cut as fast as they appear. That makes more fruit crowns. The plants are very nice grown in this manner.

After the ground is frozen I mulch the plants with marsh hay for the winter. In the spring after danger from frost is past I remove the hay from over the tops of the rows just enough to let the plants to light. I keep the hay under the plants, which insures clean berries.

You will notice there is something new to be done all the time from the setting of the plants through the whole season. That, I think, keeps one interested in the work more than if it were not so. I have been growing berries for ten years, but realize there are a great many things for me to learn yet, but if I live and keep my health I intend to make a still greater success of strawberry growing.

Devil's Lake, Mich.

Strawberry Culture in Colorado

By R. C. Aikin

THE Rocky Mountain region and the Western districts generally known as the arid or semi-arid, are very fertile and productive. The soils, regardless of color and general make-up, are very rich, never having been exhausted by the production of vegetation, nor leached or washed by water for possibly, thousands of years, lying ready to give up their treasure with the application of tillage and water. On this soil, almost everywhere, the strawberry seems at home and grows finely if supplied with sufficient moisture. The bright sunshine supplies the rosy color.

The newer soils are not affected by grasses and weeds so common in the East, so one element of labor, weeding, largely is eliminated. Cultivation to keep an open soil in such condition as to favor plant growth is what is required.

In the East—rather the countries dependent upon rainfall for moisture supply—it often happens that too much or too little is applied at one time. Here the water can be supplied at the proper time and in proper porportion, together with a soil loaded with the other elements necessary; and what phenomenal results obtain!

In the observation and limited experience of the writer there is no question as to soil elements, but the application of moisture does annoy us considerably. We have more or less fall of rain or snow in spring, and also a limited precipitation some seasons in early summer, but upon the whole we must look to irrigation to supply the necessary moisture in case of

Strawberries

IF YOU believe the plants you plant cut any figure in the results; if you think think the best is none too good for you, and cheapest in the end, and if you want to be sure of getting the variety you buy, in a condition to make the most for you, I ask you to investigate

THE PLANTS I GROW

I don't claim to sell you plants cheaper than anybody else. I am not competing with the man whose stock has nothing but cheapness to recommend it, and it is not to your interest to buy that kind. My claim is that I am producing the best, strongest, most vigorous and most prolific plants that can be grown in a favored strawberry climate and that I am selling them at a reasonable price.

ONE HUNDRED VARIETIES

About every kind that has ever proved its right to be grown in any locality. Of course I especially recommend the well known varieties that are standard everywhere, among them being **Virginia, Chesapeake, Cardinal, Commonwealth, North Shore, Oaks Early, New York, Glen Mary, Stephen's Champion, etc.** But select your own varieties and I will send plants to please you.

MY 60-PAGE CATALOGUE

Is free and gives all particulars. Also lists leading varieties in **Cabbage, Cantaloupe, Tomatoes, Field Corn, etc.** Tested novelties and Standard Garden, Field and Agricultural Implements. Don't fail to write for a copy.

W. F. ALLEN, Dept. 58 SALISBURY, Md.

no rain. And, as the late summer, fall and winter are as a rule dry, we often are caught with neither rain or sufficient ditch water. This condition often is such that in winter a field of berries may be so thoroughly dried as to kill them.

Water should be applied as late in the fall as it can be had, and then a mulch or covering put over to hold the moisture. Many berry fields are lost from failure to do so, hence to succeed one must provide mulch. The air in these arid regions is so very dry that moisture is rapidly absorbed, so much so that in the growing of raspberries and similar fruits the canes are laid on the ground in the fall and covered with earth, and even peach and other trees have been so treated, though in the tree it is evident to all that the difficulty of bending them to the ground and covering is too expensive and great to be feasible except in a very limited or experimental way.

Having overcome these difficulties the rest is a simple matter. The methods of culture are varied according to the taste of those growing, though in this part of the state the matted row seems to prevail. Our Agricultural College professor in horticulture recommends the narrow matted row. Some urge the hill. However, as land with water is very valuable in this country—it is the water that makes the value—intensive culture is the thing. When all the preliminary expense is put on in cultivation and in getting water to the field, every inch should be made to do its share. When so managed it is astonishing the returns that are obtained.

As to market it is a question always of being in close touch with it. There are in this state vast areas of arid and desert lands (desert for lack of water mostly), the irrigated tracts lying in widely separated places and often far removed from the cities and from each other. Around the cities and where markets easily are reached, there can be no doubt as to profit in the culture where intensive methods are employed. The farm should and could always have this fruit. The Warfield is a fine berry here, and many other varieties do well.

Loveland, Colo.

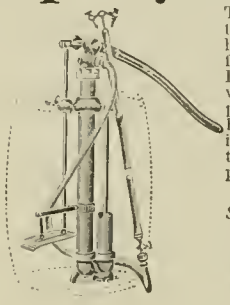
An Extended Strawberry Season

MOTHER NATURE certainly must have misplaced her calendar last fall, if we may judge from the strange freaks played in the strawberry patches all the country over. Perhaps in no previous season have reports come from so many parts of the country relative to the performance of the strawberry plants in producing luscious fruit late in autumn; and the season of 1905 will go upon the records as unusual in this regard. Away up among the granite hills of Vermont, where Jack Frost is supposed to make his first visit after starting on his annual tour from his home on the north pole, some of our folks enjoyed the extraordinary treat of big, ripe, juicy strawberries as late as the closing days of October, and down at the national capital, on the banks of the old Potomac river, red, ripe and richly flavord strawberries were gathered November 5, and some of these were growing on Capitol Hill, in the very shadow of the home of the national government.

Maine, Massachusetts, Vermont, Rhode Island, New York, New Jersey—it sounds like the old-fashioned roster of the states—send reports to The Strawberry of the pleasurable sensation created by the presence of that berry of which the world never yet has had a sufficient quantity, and out in the West Illinois, Iowa and Indiana had large crops. In Indiana, along the Ohio, the crop assumed commercial importance, and crates of the universally popular fruit were shipped to the Chicago market.

We owe much to the beautiful and delightful season of 1905. Farm and garden folk never were more prosperous as a result of warm suns and blessed rains,

Spray or Surrender



That is the ultimatum that insects and fungi have served on every fruit grower of America. If you do not heed the warning you will not get profits from your orchard Every man who sprays intelligently at the proper time finds it the most profitable operation on the farm

Send for illustrated catalog of the Eclipse Spray Pumps and Outfits

MORRILL & MORLEY,
Benton Harbor. Mich.

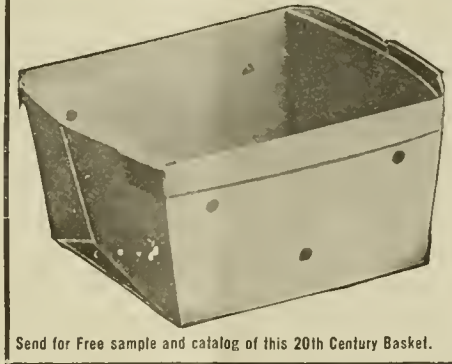
Evergreens

that are hardy in your soil and climate. You can have a perfect wind-break, grove, hedge or screen of hardy evergreens at a very low cost; also forest trees, etc., all nursery grown. I offer

50 GREAT BARGAIN LOTS AT $1 TO $10 PER 100

freight prepaid to your station. My catalog tells my own experience in planting a five-acre grove on the bleak prairies of Minnesota, that is now worth $5,000. Don't miss this chance—send for my free catalogue and bargain sheet today.

D. HILL, EVERGREEN SPECIALIST, DUNDEE, ILL.



The Basket with the Rim

That is the distinguishing feature of the

Wax Lined Paper Berry Basket

the height of Clean, Odorless, Taintless, Pure and Perfect Basket Perfection

If you are a **Berry Grower** you want our **Basket** and we want your name.

MULLEN BROS. PAPER CO.

Send for Free sample and catalog of this 20th Century Basket. Dept. B. ST. JOSEPH, MICH.

Special Fertilizers for Strawberries

peaches and other fruits. To give color, flavor and substance to the fleshy parts of the fruits requires a good supply of soluble plant food, especially potash. **Quality is what counts in fruit,** not quantity

WE MAKE SPECIAL BRANDS FOR THE DIFFERENT FRUITS

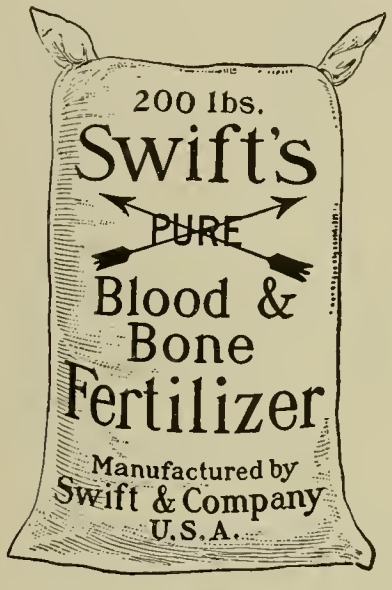
We sell goods direct to the consumer at wholesale prices where we have no agents.

For further information address

THE BUFFALO FERTILIZER COMPANY
BUFFALO, N. Y.

To Strawberry Growers

We are offering a high grade concentrated fertilizer, utilizing Pure Animal Matter as a base. Dried Blood, Bone and Meat Tankage have fully demonstrated in the soil that they are the best plant foods known. The guaranteed analysis of



Swift's Strawberry Special

Ammonia, Available	4	Per cent.
Phosphoric Acid, available	9	Per cent.
Potash, Actual K O	10	Per cent.
Equal to Sulphate of Potash	18.50	Per cent.

produces early and strong growth of plant, better setting of fruit and a full development of crop. Makes top market prices.

In considering your soil management for this season it will pay you to get full information and prices from our nearest dealer; or address

Swift & Company, Fertilizer Department, Chicago.

but we shall recall with especial pleasure for many a year the kindly dispensation which gave us strawberries up to the very appearance of old Boreas himself.

The Ever-Bearing Strawberry

FOR more than a year Edwin H. Riehl of North Alton, Ill., the veteran horticulturist, whose contributions to the science and practice of fruit and vegetable growing have made his name a household word among the foremost men of that calling, has been for more than a year conducting experiments with an every-bearing strawberry at his beautiful home on the banks of the Mississippi, Monarch Fruit Farm, where also is located an extensive experiment station of the Illinois State Horticultural Society. In reply to an inquiry sent him by the editor of The Strawberry, Mr. Riehl writes as follows concerning this experiment:

"In reply to your kind favor just at hand, will say that the Pan-American strawberry is the only one yet tested in my experiment station which is truly everbearing, there having been several varieties sent me for which that characteristic was claimed. The Pan-American plant is a vigorous grower, yet if not disbudded it will make few, if any, runners, though large stools are formed, which admits of propagation by division. Through the growing season plants are seldom, if ever, seen without blossoms and fruit in all stages of development. The fruit is medium to large, bright red in color, moderately firm, quality fair."

Mr. Riehl is known for his conservatism in reporting upon his experiments, and this fact gives added interest to his statements. The ideal ever-bearing variety evidently has not yet appeared, as those which show a tendency to grow throughout an extended season have defects of the nature observed by Mr. Riehl. However, there is always a possibility of greatly extending the season of a good variety through breeding and selection, and this possibility opens the way to interesting, and perhap, very successful, experimentation along these lines.

Take Your Own Time. **Old Trusty Incubator**

40, 60 or 90 Days Trial.

We want to send you the "Old Trusty" Book. You ought to read it before buying an incubator, because it has more every-day "chicken sense" in it than any catalog you have ever seen. 300 good pictures. It tells **why** "Old Trusty" does such good work—**why** it hatches so many and so good chicks—**why** it is so easy to operate—**why** it is so economical. It's sold on 40, 60 or 90 days trial, freight prepaid. Write to us.

M. M. Johnson Co.,
Clay Center, Neb.

We Pay the Freight.

LITTLE ADS. FOR OUR FOLKS

AN ADVERTISING EXCHANGE FOR ALL Strawberry Growers in which they may make known their wants. If you have anything to buy, sell or exchange, need a job or are looking for help in your strawberry work, here is the place to make it known. Count name, post office, initials, words or numbers each as one word, and remit a sum equal to 2 cents for each word for each insertion. No order will be accepted for less than 25 cents and cash must accompany each order. Advertisements must contain address, otherwise we cannot forward replies from this office. Remit by post office or express money orders.

WANTED—Man thoroughly posted on strawberry culture, to manage my farm in Chippewa County, Wis. Good log residence, plenty of room for such a man to develop "side lines" for his own profit. Strawberries thrive here and, as they mature late, command highest prices in the Chicago markets. Great chance for a bright, enterprising man. Address W. D. H., care The Strawberry.

WANTED—Man who has some knowledge of strawberry production, but is not afraid to turn his hand to any other sort of work on my Nebraska farm. Will give such a man work for the entire year. Address W. R. A., care The Strawberry.

PRINTING FOR STRAWBERRY GROWERS—Letter heads, envelopes, cards, labels. First-class work at low prices. The Kellogg Publishing Co., Three Rivers, Michigan.

TRY the Kellogg malleable-iron, one-piece Dibble, if you would turn plant-setting into a delight. Pays for itself in one half-day's work. Write the Kellogg Co. for their little folder on "How We Keep Down the Weeds." 'Twill help you in your work. R. M. Kellogg Co., Box 775 Three Rivers, Michigan.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

THIS Correspondence School is for you, as we take it for granted that you already are a subscriber to this magazine or at once will have your name placed on its lists. It is for you in the sense that all its members have a right to come to it for counsel and assistance, fully assured of a cordial welcome and the very best we have to give. Here we shall hope to meet on the basis of frank and free discussion every friend of the strawberry and all who are interested in its production. We wish that you shall be free to come here with your problems and let us help you solve them.

Don't hesitate to ask questions—the more questions the better. And if you are in special need of help and feel that a crisis is imminent, we shall be glad to answer your inquiries by mail or by telegraph. For the former send a stamp to pay postage; for the latter, a sufficient sum to cover cost of message. We shall have a special department for the answer of "hurry-up" questions, and it will cost you nothing for our services.

Keep a file of this magazine; we do not intend to answer the same questions twice, but shall refer the questioner to such-and-such a page in such-and such an issue of The Strawberry, should he ask a question which once has been answered in these pages.

In sending in your questions make a paragraph of each one of them so that we readily may catch every point you wish covered; and see that your questions are clear and explicit.

Now let us all get together and see how great and valuable we can make this schlool of strawberry culture—the first and on y one of its kind in the world. That it shall be interesting and helpful is our determination. May we not have your cooperation?

G. E., Marshburg, Pa. Please advise me how to mate Warfield, Enormous and Sample. I have them now and also have Dornan, Glen Mary, Wolverton and Splendid. 2. Do you use both horse and cow manure?

1. Warfield has a long blossoming season and should be mated on one side with an extra-early bisexual, such as August Luther, Excelsior or Texas, and you may use Splendid or Wolverton on the other side. One row of bisexuals and three of pistillates will give good results. Splendid will make a very good mate for Enormous, and still better results will be secured by using Dornan in connection with Splendid, set in the same way as recommended above for Warfield. Sample and Dornan will go nicely together, but the Pride of Michigan will cause your Samples to give even better results because of its strong pollenizing power.

2. Horse and cow manure mixed in equal quantities make an ideal fertilizer for strawberries. For varieties that build up a scant foliage with large quantities of berries we prefer to use horse manure alone, as it is richer in nitrogen.

J. E. F., Coeur d' Alene, Idaho. Have just purchased eight acres of rich land, where wild strawberries grow most luxuriantly on hill, valley and prairies. Now which will give me the best results as a commercial proposition?

Strawberries thrive on either high or low land, but as you have all kinds to select from, we should prefer the hills to evade the danger of frost. If, however, you must irrigate, the valley will serve you better.

R. B. C., Barlinville, Ohio. I have a sorghum mill handy where I can get plenty of cane pomace. Would like to know whether this would be suitable for mulching? 2. Is oat straw as good as wheat straw for mulching?

1. We are slow to recommend anything until we have tried it on our own grounds. Many inquiries similar to your own led us last year to experiment with the cane pomace. It gave such excellent results as a mulch that this year we have engaged the entire output from a large mill, hauling the pomace a distance of four miles. We like this material because it contains no weed seeds and aids greatly to retain moisture in the soil.

2. Either wheat or oat straw makes a fine mulching, but with plenty of both to choose from we should prefer the wheat straw because it is more easily spread apart in the spring directly over the rows, thus allowing the plants to come up without obstruction. The oat straw mats together and is more difficult to separate.

G. G. S., Perry, Okla. You have given me so much information about strawberries that I thought possibly you might know where I could get desired information about watermelons.

We do not grow watermelons, but refer you to Bulletin 86 of the New Hampshire station (Durham, N. H.), and also to Bulletin 38 of the Georgia station (Athens, Ga.) on this subject. Send a 2 cent stamp to each state station. Also ask the Department of Agriculture at Washington for its publications on the watermelon. No stamp is required for publications from the department.

Mrs. F. H. M., Gainesville, Iowa. I have a sod that has laid nine years; the men have hauled manure on it, and they intend to plow it this fall. I would like your advice: will this be good ground in which to set strawberries next spring? I also have a piece of ground where a pig pen has stood for the last four years. That also will be plowed this fall. I ask your advice as to which of these pieces will be the better to use for my plants.

Either of these plots will be ideal for strawberries, inasmuch as you are plowing them this fall. Old sod land frequently is infested with white grubs, which feed on the roots of grasses and strawberry plants. Turning the sod under exposes the grubs and all other insects to the freezing and thawing; also to birds and other feeders upon insects. This does away with all danger from these pests.

J. O. S., Dana, Ind. Enclosed please find $1 for The Strawberry. I am anxious to see the first number of the paper. I wish to ask you in regard to putting strawy manure on strawberries in the fall. I have been hauling some and putting it between the rows and intend to shake the straw out and put it on the rows later. Would I better do this now (October 28) or wait and put it on with a manure spreader?

Coarse stable manure makes an ideal mulching for strawberries, but we would not cover the plants until light freezing. Put the strawy parts directly over the plants and the decayed matter between the rows. Of course stable manure is liable to contain weed seeds, but these will cause you no trouble if in early spring, as soon as danger from frost is past, you will rake the coarsest parts close to the plants and cultivate the bare space between the rows. The mulch will be so thick as to discourage seed germination, while the cultivator will prevent the weeds from growing there. At the same time the cultivator will create a dust mulch that will hold about 50 per cent more moisture in the soil than would be the case if the surface were left undisturbed. Another point in favor of cultivation is that it mixes the decayed por-

tions of the manure with the soil so that the moisture may dissolve it into available form for plants to feed upon at the very moment they need it most. A word of caution: don't cultivate while plants are in bloom unless soil is moist enough to prevent dust from flying. Cultivate after each picking. The straw, which has been raked close to the plant, holds moisture there and also affords a clean place for the berries to ripen on. In this way cultivation may proceed during fruiting time without soiling the berries. In our own experimental beds we have been able, by following these methods, to increase size and yield by more than 20 per cent. The manure spreader is one of the most valuable tools on the farm, but we do not advise its use on the strawberry beds, as it does not put the manure in the right place. In preparing soil for plants the manure spreader is ideal.

W. A. J., Peoria, Ill. I wish to set my strawberries on clayey new ground. How can I best prepare it? 2. I will set two rows 100 feet long. How many plants will it require?

1. We take it that your ground is virgin soil. This being true, it will be unnecessary to use fertilizers, as there should be plenty of plant food to produce a big crop of berries. It should be broken up the fall preceding the setting of the plants.

2. Set your plants two feet apart in the row, which will, of course, require 100 plants for the two rows.

H. A. B., Spokane, Wash. I am opening up a new place and want to put in one-half acre of strawberries. What variety would you advise me to set?

You should set plants to represent each season in order to have a continuous supply of fruit. For instance, Climax, August Luther, Senator Dunlap, Pride of Michigan and Sample would be a selection that would take you through the entire season from very early to the end. Other varieties representing the same seasons will do equally as well.

C. L. M., Winchester, Ind. I have on hand quite a supply of chicken droppings, also some well-rotted stable manure, in which there is no weed seed. When, if at all, would you advise putting it on my plants? 2. Would you advise scattering it over the plants or between the rows? 3. What is the best way to handle Gandy to get largest results?

1. We would mix the chicken droppings with four or five times the quantity of stable manure, and put it on in the fall just before mulching. If put on too early in autumn it will stimulate too much vegetative growth, encouraging foliage rather than fruit buds. In your locality plants start making fruit buds in September.

2. Scatter the manure lightly between the rows.

3. The Gandy plant has a tendency to expend its energies in developing foliage. To check this tendency you should discontinue cultivation early in the fall, going deep enough at the last cultivation to cut some of the roots. Do not work among them later than the middle of August, except to keep down the weeds. In preparing soil for the Gandy use no nitrogenous manures. Avoid using the chicken droppings on the Gandy. They should be grown in narrow matted rows, but do not allow plants to crowd each other in the row. The first bloom of Gandy does not supply enough pollen to impregnate the stigmas. Therefore you should have another bisexual, strong in pollen; set every third row. In this way you can greatly extend the fruiting season and increase the yield of the Gandy. Where these methods are closely followed, the Gandy is a leader and money maker because of its lateness as well as ts prolificacy.

A. L. E., Smithtown Branch, N. Y. Have I made a mistake? I have kept all blossoms and runners off my spring-set plants. Now is it too late (August 14, 1905) to allow one to start from each side of the mother plant?

You have made no serious mistake. In fact, you have greatly strengthened the mother plants by relieving them of the burden of runner-production. Now they are strong and vigorous and it is not too late for them to send out runners, and the young plants will have ample time to build up fruit buds. To assist them to root rapidly throw a little dirt with the hoe on the runner just back of the node.

J. B. H., Union City, Pa. The field I intend to set to strawberries next year was manured heavily last spring and planted to potatoes. In digging the potatoes I find a great many white grubs, and the potatoes were badly eaten. Now will these grubs be in the ground next spring? This is the best piece of ground I have for strawberries, and could use it for this purpose if I can get rid of the grubs in any way.

If the soil is left undisturbed, grubs undoubtedly will be present in the soil next spring, but if the soil be broken up and the furrows left loose and open, it will expose the larvæ to severe freezing and thawing, which is fatal to them. This also aids in getting rid of the parents of the grub, which are the May and June beetles. Chickens, turkeys and hogs will leave corn for white grubs and will work hard all day in the hunt for them. If you are so situated that you can follow these methods you need have no fear but the grubs will be eradicated. We have experimented with all kinds of sod in the ways suggested and found them very effective.

J. H. F., Hudson, Ill. The leaves of my plants look dry and curl up, and upon examining them I find the leaf drawn together with a web, and on opening up the leaf find a little worm on the inside. I burned over a part of my bed after picking, and that part no longer appears to be affected. What is the trouble and what the remedy?

Your plants are infested with the leaf roller. The eggs are deposited on the foliage by a little brown miller and after the roller hatches it weaves a web which draws the leaf together for its protection. As soon as this is done it starts feeding upon the tissue of the leaf. This is a very common insect enemy of the strawberry, but seldom does a great deal of damage. Parasitic insects—the lady bug and the spider—feed upon the larvæ of the leaf roller, thus preventing rapid multiplication. The burning over of the bed after fruiting is one of the best and cheapest methods of destroying them.

Seeds, Plants, Roses,
Bulbs, Vines, Shrubs, Fruit and Ornamental Trees

The best by 52 years test. 1200 acres, 40 in hardy roses, none better grown. 44 greenhouses of Palms, Ferns, Ficus, Geraniums, Everblooming Roses and other things too numerous to mention. Seeds, Plants, Roses, Etc., by mail postpaid, safe arrival and satisfaction guaranteed, larger by express or freight. You will be interested in our extraordinary cheap offers of over half a hundred choice collections in Seeds, Plants, Roses, Trees, Etc. Elegant 168-page Catalogue FREE. Send for it today and see what values we give for a little money.
THE STORRS & HARRISON CO.,
Box 259 PAINESVILLE, OHIO.

Trees, Plants & Seeds THAT GROW
Best quality. Good bearers. Low prices. Apple 4c; Plum and Cherry 12c; Peach 4c; all budded; Concord Grapes 2c; Forest Tree Seedlings $1 a 1000 up.
GERMAN NURSERIES
Carl Sonderegger, Prop.
Tested seeds very cheap. Freight paid on trees. Catalogue, English or German, free. Write for it today. Address
GERMAN NURSERIES,
Box 101 Beatrice, Neb.

FREE
ALL TOOL STEEL
AGENTS FINE SAMPLE OF
12 TOOLS IN ONE
HATCHET, HAMMER ETC
WRITE FOR OUR FREE OFFER
HAS NO EQUAL
NATIONAL TOOL CO.
3 Rivers, Mich.
No. 2 3d Ave.

Let us Act as Your Factory
THAT'S OUR BUSINESS
We make nothing of our own for sale. Manufacture exclusively for others anything in metal. We refer you to the publishers of this magazine.
Kalamazoo Novelty Co., 200-216 Rose St., KALAMAZOO, MICH.

Mention "The Strawberry" when writing.

The best preventive is early spraying with Paris green. The mixture should consist of seven ounces of Paris green, dissolved in four pounds of unslaked lime and fifty gallons of water. When used in connection with Bordeaux mixture use only two pounds of unslaked lime, because the Bordeaux mixture is partly composed of lime.

W L. S., Randall, N. Y. Please tell me if I should cut off all runners from the mother plants, or should I leave them on until spring? I have been told to cut them all off, but thought it best to write you in order to be sure.

If your object is to grow the plants in the hill system, it will be correct practice to cut the runners off; but you would get better results if you allow each mother plant to make from four to six runners, which would make a double hedgerow. You are wise to get information of this kind from a reliable source. To attempt to follow the advice of those lacking experience means almost inevitable failure.

S. V. C., Ida Grove, Iowa. 1. Is there a pistillate variety of strawberries that will produce as much fruit as Senator Dunlap, and will it grow as large a plant as the Senator Dunlap? 2. Does the Bubach grow as strong as the Senator Dunlap?

1. Haverland, Sample, Warfield, Crescent and Downing's Bride will produce as many berries as the Senator Dunlap. The Crescent, Warfield and Downing's Bride produce a foliage similar to the Dunlap, while Haverland and Sample grow closer to the ground.

2. The Bubach is a strong grower with a large waxy leaf, but throws up short fruit and leaf stems. It is a wonderful producer and very popular in all markets. The balance between fruit and foliage is good.

J. S., Wathena, Kas. 1. How is clover sod for strawberry plants? Will they thrive on it? This is the only way we have to enrich the soil. My soil is excellent for potatoes and corn. I have plowed up my old patch and sowed it to cowpeas. Expect to put it into strawberries again next spring. Would you fertilize this patch now or wait until spring? 2. Will Senator Dunlap properly mate with Sample? 3. What proportion of bisexual varieties should I set to pollenate pistillates?

1. Clover sod is excellent for strawberry plants, provided it is broken up in the fall. It is one of the most valuable of the leguminous crops and furnishes an abundance of humus and nitrogen. Humus increases bacteria and nitrogen stimulates a strong vegetative growth in plants. One of our finest fields of plants this year is growing on clover-sod land. You have followed the proper course in turning under your bed of old plants and sowing it to cowpeas. It should be in ideal condition for plants the coming spring. If you use manure for fertilizer apply it this winter, but commercial fertilizer, if needed at all, should be applied in the spring and thoroughly incorporated with the soil before the plants are set.

2. Dunlap and Sample are not of the same season, but if you will set one row o. Dunlaps to three of Sample, following with a bisexual of later season—such as Pride of Michigan, Aroma, or Brandywine—the Dunlap will furnish pollen for Sample's early bloom, while the late bisexual will supply pollen for Sample's late bloom. This places Sample between a mid-season and a late bisexual, which is the ideal way to set any pistillate. This also answers your third question.

C. M. K., Burnett, Calif. I would like some information on a point that has been a source of annoyance to me. I am raising Brandywine berries under irrigation on strong sediment soil which is composed of very fine particles of sand (not gritty) and clay, and when wet by irrigation or heavy rains it cakes. We get thrifty plants and a large yield of fruit, but the berries lack color and are deficient in keeping qualities. Are there any cultural methods I can adopt that will remedy these defects?

The reason your soil runs together and becomes too compact is due to insufficient humus. A liberal dressing of stable manure well worked into the soil will do much to relieve this condition. The better method is to grow some leguminous crop (cowpeas, soy beans or clover) the season before setting to strawberries. One reason why your berries are deficient in keeping quality is the lack of potassium in the soil; another is excessive irrigation. Potassium in the soil will add color to the fruit and fortify its keeping powers. Use a commercial fertilizer rich in potassium.

W. McK., McKownville, N. Y., August 10, 1905. I want to set a half-acre in strawberries next spring. The soil is sand loam and I have been growing potatoes and vegetables on it. It has been manured every year. I will plow it this fall and give it a coat of manure this winter and replow it in the spring. What do you think of this for strawberries?

There is nothing better than sandy loam for strawberries. The growing of potatoes and vegetables in previous years, with frequent applications of manure, has put it in perfect tilth. Fall plowing is just the thing. Five pecks of rye to the acre sown in the fall to act as a cover crop and to take up manure leachings will still further improve the soil.

W. B., Riverton, Wash. 1. Is there any advantage in buying pistillate varieties when you can get bisexuals that promise great yields and large berries? 2. In picking how are berries sorted?

1. As a rule the pistillate is more prolific than the bisexual, provided the pistillates are properly mated. The pistillate

Spray to Some Purpose

With the outfit here shown. Nothing to equal it for any sort of row spraying. Note that each one of the four rows is covered with three spray nozzles—fine spray from above and both sides forced under heavy pressure to every part of the plant. Sure death to every sort of pest.

IT'S THE AUTOMATIC

Wallace Row Sprayer

which costs nothing for power. Power generated while driving through wheel gearing. Pressure strong and constant. Made for any width track. Nozzles are adjustable in all directions. Sprayer also can be used for orchard work

We also make Standard and Duplex two-horse sprayers and the best gasoline engine outfit on the market. Fine catalogue, just out, gives all particulars. FREE. Write for it.

WALLACE MACHINERY CO., Champaign, Illinois.

TREES, PLANTS, ETC.

We have an unusually fine stock of One Year Old and June Bud Peach Trees. One and Two Year Old Apple, Pear, Cherry, and Plum Trees. Grape Vine, Shrubbery, Roses, Etc. Also all kinds of Small Fruit Plants. Strawberry plants by the million. Send for catalogue and price list before you buy for our low delivered prices.

CHATTANOOGA NURSERIES, CHATTANOOGA, TENN.

supplies no pollen, therefore will not weaken through pollen exhaustion. The greater percentage of growers use both pistillate and bisexual plants, and we consider this by all means the better way.

2. You should have pickers' stands or carriers large enough to hold four quart boxes. Sorting is done by the pickers in the field; they place fancy berries in separate boxes from the second grades. This avoids rehandling at the packing house.

⚜ ⚜

B. W., Red Cliff, Iowa. 1. Last year I set 100 strawberry plants—can't give you the name, but they came from Osage, Iowa—in good rich soil and kept off the runners. They grew to be extra large plants and were loaded with blooms this season. But when fruiting time came there were no berries worth mentioning. What is the trouble? 2. I have only a small place—about 30x40 feet—and want a nice bed for home use. The land is low black loam. Will this be good for strawberries?

1. You have set a pistillate variety which is devoid of pollen, a frequent occurrence when plants are purchased from those who fail to advise their patrons. You should have placed your pistillate variety beside bisexual plants. The results then undoubtedly would have been satisfactory.

2. Your little plot, if set to well-developed and properly mated plants, will produce all the berries a large family possibly can consume. As your soil lies low, we advise you to make a slight ridge and set the plants on top of this ridge, as is done with sweet potatoes. This affords drainage, and is a slight protection against frost.

⚜ ⚜

G. S. W., Duluth, Minn. 1. For twenty-five years I have been in the railway mail service, giving my brawn and brains for others. Have always lived in the city and have raised a family of eight. I now have bought ten acres of fine land just three miles from a good little city of 4,000 souls, and am now going to try to make a home for the dear little woman who has stuck to me through thick and thin for forty-three years, and I want you help me get started on the right track. What, in your estimation, would be the best berry for me to start with? 2. About how many plants would you advise me to set out the first year? 3. How often should I renew my beds; or in other words, how long will they continue to be profitable?

First let us congratulate you upon your determination to get a productive home—a home that sustains itself, or does even better than that. No other line of work offers a more promising opening in this direction than does strawberry growing. We wish you great success!

2. We invariably advise beginners to start with small acreage, and suggest that you put out the first year not more than two acres. Your 19-year-old son could take care of this acreage with very little help. As you gain in experience and develop a market you may increase your acreage year by year.

3. A new bed should be set every year. By following this plan you will have a new bed coming into bearing every year and production is therefore continuous. Two years is as long as plants will fruit profitably. After the second crop has been picked burn over the bed and turn under, and plant this ground to some other crop. Such a rotation aids in keeping your place free from injurious pests.

⚜ ⚜

W. H. S., East Pepperill, Mass. 1. I would like to know how much the plants would cost to set out two acres? 2. I have a cornfield and a pasture. Which one would you set to strawberry plants? 3. What can I do with the land this fall to put it in best condition for berries? 4. Could you give approximately what it would cost to take care of the two acres from the time the plants are set until they are covered for winter? 5. This soil is good vegetable and corn land. Will it be good for berries?

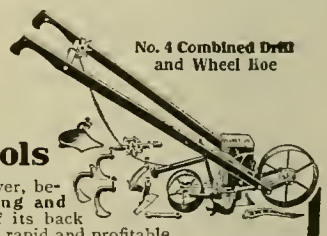
1. You should count upon 7,000 plants to the acre; the price depends upon the varieties selected.

2-3. Our first choice would be the corn land, assuming it to be in a fertile state. However, the pasture land will give good results if it is broken up in the fall. A light dressing of manure on either piece, well worked into the soil in the spring before plants are set, will improve both the mechanical and chemical conditions of the soil and aid much in producing a big crop or fancy berries.

4. The cost will depend upon the amount of labor expended and upon the one doing the work. The kinds of tools used also has much to do with the cost. Every dollar's worth of intelligent work put upon the strawberry bed will prove a big paying investment. We estimate that one man can give first-class care to four acres of strawberries.

5. Any soil that will produce good vegetables and other crops will give equally good results in strawberries.

PLANET JR. GARDEN TOOLS



Planet Jr. Tools

are known and used the world over, because they make **Planting, Hoeing and Cultivating** easy; rob the work of its back breaking drudgery, and make it interesting, rapid and profitable.

There is a Planet Jr. for every need. Our new 1906 catalogue describes and illustrates Seeders, Wheel Hoes, Harrows, Riding Cultivators (one and two-row,) Sugar Beet and Orchard Cultivators, etc.—forty-five tools in all.

No. 4 Planet Jr. is the most popular combined tool made. It combines in one implement, a perfect seeder and a splendid wheel hoe, weeder, cultivator and plow. Seed can be sown in continuous rows or in hills 4, 6, 8, 12 or 24 inches apart. It is easily changed from Drill to Wheel Hoe, and is useful every day of the season and at every stage of the garden work. With this implement the farmer or gardener can do all the work in his small crops in the best manner at double quick speed.

No 12 Double Wheel Hoe will enable you to hoe every day two acres of onions or any similar crop and do it faster and better than three men with hand hoes. It runs either astride or between the rows, kills all weeds and leaves the soil in splendid condition. It is also useful for opening and closing furrows. **OUR 1906 CATALOGUE** shows many garden scenes at home and abroad that will interest you. Be sure and get it. **We mail it free on request.** S. L. ALLEN & CO., Box 1106-D, Philadelphia, Pa.

32 YEARS SELLING DIRECT

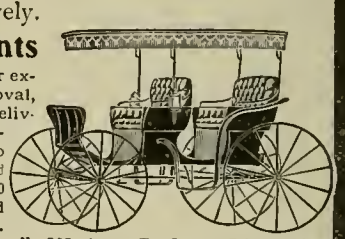
We are the largest manufacturers of vehicles and harness in the world selling to consumers exclusively.

No. 628. Leather Top Buggy with Leather Covered Bows and ¾ inch rubber tires. Price complete $68. As good as sells for $25 more.

We Have No Agents

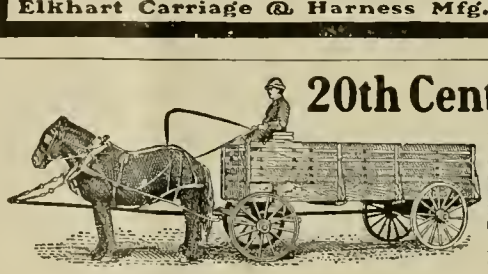
but ship anywhere for examination and approval, guaranteeing safe delivery. You are out nothing if not satisfied as to style, quality and price. We make 200 styles of vehicles and 65 styles of harness.

Our large Catalogue is FREE. Send for it.



No. 327. Canopy Top Surrey. Price complete $73. As good as sells for $25 more.

Elkhart Carriage & Harness Mfg. Co., Elkhart, Indiana.



20th Century Combination

A wagon box, stock rack and hay ladders combined. Can haul loose hay or straw, all kinds of live stock ear corn, threshed wheat or oats, apples, potatoes, etc. Good for every use on the farm without removal of parts. **All Changes Made Instantly.** Catalog Free

MODEL M'F'G. CO., Box 52, Muncie, Ind

Greening's Trees are Steam Dug

GREENING'S PRIZE BLOCK OF WHOLE ROOTED APPLE

When you order Greening's Trees you get well developed stock, free from disease, ready to grow and make money for you.

Not Broken or Bruised

Large Healthy Bunches of Roots

Digging Trees by Steam Power.

Northern Grown Trees that are are hardy and will stand very severe tests, smooth, thrifty and straight. We guarantee superior quality and true to name or no pay.

We want good, honest Agents and will pay Cash Weekly

Have over 500 agents; want 1,000
We grow trees by the million

Buy from the Big Nurseries

SEVEN HUNDRED ACRES

The Greening Nursery Company

MONROE, MICHIGAN

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan.

ROBERT S. FOUNTAIN,
Advertising Manager,
47 Plymouth Place, Chicago, Ill.

Subscription Price One Dollar a Year

Application made for entry at the postoffice at Three Rivers, Mich., as second-class matter.

JANUARY, 1906

OUR colored cover is a photo-illustration of a strawberry farm very familiar to us, and though the engravers have not done justice to the subject and the close observer will note some defects, the fine thoroughbred plants in the foreground, the beautiful background of noble trees, with the simple cottage and its pretty domestic scene—the housewife taking the morning's mail from the hand of the rural mail carrier—all conspire to make a taking and effective picture of the country home set among the most beautiful of nature's decorations. It is our aim to present only actual photographic reproductions in The Strawberry, thus encouraging the reader to do what others have shown it to be easy to accomplish if one has the intention and the will to do it.

READERS are directly interested in the advertisements appearing in a journal to which they subscribe and to know of the attitude of its publishers concerning the character of the matter admitted to its advertising columns. In this initial issue of The Strawberry we desire to make our position clear on this point.

Many good journals guarantee their subscribers against loss should the latter be led to patronize a swindling concern through an advertisement appearing in the columns of those journals. That is the proper thing to do, but we purpose going further and guarantee our readers against introduction through our pages to anything that falls short of the highest standards of business integrity, insisting that whatever appears in its columns shall represent something of positive advantage to the reader, considered either from the material or moral viewpoint.

No liquor advertisement, no "patent" medicine advertising, will be admitted. We do not mean by this to intimate that there are no worthy remedies among the so-called patent articles, but we are unable to discriminate between them, and so exclude them altogether. So with stock-jobbing and gambling devices, mining schemes and "opportunities in oil," "get-rich-quick schemes" or any other thing concerning which there is the shadow of a doubt—none may have access to our readers through these pages.

What we do purpose, however, is to carry such lines of advertising as shall win for us the confidence of every reader and make mutually helpful friends of advertiser and reader. To paraphrase the famous motto of the late Charles A. Dana, we want our readers to feel that "If you see it in The Strawberry, it's all right!" And so, when we publish the merits of our advertising friends to our subscriber friends we wish it understood that it is in the nature of a personal introduction, and that we stand sponsor for the good faith of each.

RECENTLY we purchased one of the Kalamazoo Stove Co's. (Kalamazoo, Mich.) ranges and one of their base burners—the Royal range and the Radiant heater. We unhesitatingly pronounce them the best of their kind we have tried in a quarter of a century of experience with ranges and heaters and in the consumption of antracite coal in both. For economy of consumption and effectiveness in radiation, for ease in management and quickness of response to proper manipulation, we never have seen their equal; and they are as handsome and durable as they are effective. And to say one word more, we estimate that in the purchase of these two domestic necessities we have saved at least $25 because we bought them direct from the manufacturer. The methods of the Kalamazoo Stove Co. are as fine as their manufactured products—all are first-class and thoroughly up to date. Strawberry folks ought to know this company.

THERE is another Kalamazoo institution whose advertisement appears in The Strawberry, with which we have done a large amount of business—the Kalamazoo Novelty Co., and we can say to anybody having anything to manufacture in the way of iron or steel or brass from a hatchet to a steam engine, that this company will give your order the best of attention and care. Just try them and see, if you are in quest of a factory to manufacture anything in metal.

ANOTHER advertiser whose goods we can recommend without hesitation because of actual experience with them is the Elkhart Carriage and Harness Co., of Elkhart, Ind., one of whose graceful and well-built surreys has been in service on the farm long enough to test its qualities thoroughly. The Elkhart Co. also is a "direct to consumer" manufacturer, with the result that the middlemen's profits go the purchaser. You can't make a mistake if you deal with them. Ask for their catalogue of carriages and harnesses, and discover what a splendid concern it is with which to do business. And don't fail to mention that you saw it in The Strawberry

AND there is the Aspinwall Manufacturing Co., of Jackson, Mich., who have used a scene on the farm-home of The Strawberry to illustrate their excellent sprayer in the handsome full-page advertisement that adorns our second cover page. That picture tells the story and shows to what good use we are putting the Aspinwall spraying machine. It also tells volumes as to our opinion of the Aspinwall goods, for we make it a rule to use only those farm accessories that serve their purpose well. It is a pleasure to introduce our patrons to the Aspinwall people, who always do business on the basis of the "square deal."

THEN there is the American Harrow Co., of Detroit, whose 150-bushel manure spreader has done such great service in our interest for the last three years—and still appears to be as good as the day it went into commission. In this day of farm economics there are few things that serve a larger purpose than the manure spreader; and we can heartily recommend the American as a result of actual and large experience. Write for their catalogue and see how many ways they have under which they will sell you a spreader on easy terms—so easy that you would scarcely feel the paying for it.

ONE of our neighbors, Frank R. Fisher of Moorepark, Mich., for some months has been introducing a harrow that does wonders in the way of preparing the soil for garden and farm crops. It is the Naylor Combination Harrow, and it is well worth your while to look into its merits. It is a combination of spike and spring teeth, the latter controlled by two levers so as to raise or lower them at will. You will see by the advertisement how the farmers who have had a chance to see it work are buying it. Send for a circular to the address given in the advertisement and we are sure you will be interested in this implement.

SPEAKING of sprayers, the Wallace Machinery Co., of Champaign, Ill., are making a machine that just now is attracting the attention of fruit men everywhere, and we shall make a thorough test of it during the coming season. The Wallace Co. is one of the old reliables, and anything that it puts out may be counted on to do good work. Write today for a catalogue, mentioning The Strawberry, and study the question of spraying machines during these long winter evenings.

STARK BROS., the famous nurserymen of Louisiana, Mo., were the first to respond to our announcement regarding The Strawberry, and there came from them a prompt request for the back cover page. You will observe how attractively they have filled it with interesting and suggestive facts concerning their immense business—one of the largest of its kind in the world. Quality and size go together here, for the Stark Bros. look after their patrons' welfare with an interest and loyal zeal that has been one of the principal factors in their tremendous success.

MICHIGAN also has a big nursery, and it is run by big men who do things in a big way. Over at Monroe one of the institutions of which the townsfolk are particularly proud is the Greening Bros'. nurseries. Trees are grown there by the million on 700 acres of as fine land for the purpose as may be found anywhere. Every order of nursery stock is included in their catalogue, and if you are in the market for goods in their line, send for a copy of it and you will find much to interest you therein.

FARM folk will find few later-day labor-savers more effective than the combination wagon-box, that you can transform in a twinkling from a corn-carrier into a hay rack, and from a hay rack into a moving sheep, swine or cattle wagon Indeed, these are only a hint of the capacity of the Twentieth Century Wagon-box to suit itself instantly to the necessities of its owner. No lifting of a heavy box is necessary at all. What this means to the man on the farm nobody else can appreciate quite so thoroughly as the man who is performing that back-breaking feat every few days or hours, as the case may be. The Twentieth Century is made and sold direct to the consumer by the Model Manufacturing Co., Muncie, Ind. Write for a catalogue. Do it now.

Big Money in Strawberries

We Teach You How to Grow Them

DO you know, dear reader, that raising strawberries for market is an exceedingly profitable business? Well, it is, if you know how to do it right. And it is not only a big money maker, but is a very pleasant and healthful pursuit as well, as many of our pupils can testify.

But you must thoroughly understand how to go about it.

You can't succeed in getting all there is in it of health, enjoyment and good hard dollars without proper training.

And to get that practical training and preparation that will make success absolutely certain, you must put yourself in touch with those who are equipped by experience to help you.

Isn't that true?

THE KELLOGG CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE teaches you the way and tells you how to grow big crops of fancy berries and how to pick and pack them for top prices.

We show you how to get more select berries from one acre than two will produce of the "other kind" under the old heads.

We make every detail of the work plain and tell you just when and how to do everything to get the very best results.

We show you how to lower the expense of production and increase your receipts.

We explain in a practical way how large families with small gardens can grow an abundance of choice berries for home use and make money, too.

We prepare the young man for a good paying position.

There is a great call for foremen on berry farms. The demand is far in excess of the supply. We fit you for that work.

Our course of instruction trains the young woman for an ideal out-of-door occupation in which she can make much more than an independent living.

The first person to join this school was a young woman who has won splendid success as a strawberry culturist in Minnesota.

And among our hundreds of pupils are many women who are enthusiasts in the business.

Miss S. M. Pollard, of Woodside, Minn., sends us a clipping from a local newspaper and says that it was through our instruction that her success as referred to therein was made. She says that the 1905 crop was her first attempt at raising strawberries, yet from about eight rods of plants, she had sold on July 19th, 400 quarts and had about 300 more to gather.

The newspaper clipping follows:

> "The largest and nicest strawberries we have had the pleasure of seeing this year were brought to our office by Miss S. M. Pollard, of Woodside. The size of the berries is phenomenal, some of them measuring five and one-half inches in circumference, while the flavor is sweeter and it is more juicy than the western and southern berry."

No other out-of-door employment offers larger opportunity to the enterprising than does strawberry culture, and the field is a wide and open one. No grower is too large and none too small to be benefited by our teachings.

The better you understand your business the more money you can make and with less work.

Now, if you want to know all about our methods, send us your name and address and $1.00, and you will be enrolled as a full member of the great Correspondence School.

And "The Strawberry", our interesting and valuable publication, will come to you each month full of instruction and tell you just what to do in your strawberry field at that particular time, and will keep you from making expensive mistakes.

"The Strawberry" will contain no puzzles, no visionary stories, no imaginary theories; nothing but strictly business instruction, common sense and actual experience from the world's greatest experts. It is the only journal in the world devoted exclusively to the interests of strawberry producers

What We Did for One Pupil

East Jaffrey, N. H., Nov. 6, '05.

R. M. KELLOGG CO.

In the spring of 1904 I ordered 1,000 of your Thoroughbred Pedigree Plants, set them on one-eighth acre of good soil and handled them according to your instructions. I picked off the buds the first year and what do you think I got in return? I picked and sold 900 quarts of nice, big ripe berries, sold them for 15 to 18 cents per quart, making in all $156; that is just what 1,000 plants did for me. I picked and filled standard quart baskets with fifteen berries and can furnish proof if anyone doubts my word. I shall want 10,000 of your Pedigree plants for next spring; can I get them?

Yours truly,
ISRAEL VALWAY.

The Strawberry Bed Interests the Entire Family

Don't delay, but write us today. Address

R. M. Kellogg Publishing Company, 118 Portage Ave., Three Rivers, Mich.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

General Offices, Nurseries, Packing Houses and Shipping Station

LOUISIANA, MO.

BRANCHES { Starkdale, Mo. / Rockport, Ill. / Portland, N. Y. / Dansville, N. Y. / Fayetteville, Ark. / Atlantic, Iowa

Oldest Nurseries in the West
Established 1825

Largest Nurseries in the World
4675 Acres

WE PAY FREIGHT on $5 orders (one-fourth cash to be sent with order) at prices quoted in our Wholesale Price List, to any R. R. Station in

ARKANSAS KANSAS ILLINOIS MISSOURI
INDIANA NEBRASKA IOWA OHIO

On Orders Amounting to $7.50 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ALABAMA	DELAWARE	DIS. COLUMBIA
CONNECTICUT	INDIAN TER.	KENTUCKY
GEORGIA	MARYLAND	MICHIGAN
LOUISIANA	MISSISSIPPI	NEW JERSEY
MINNESOTA	N. CAROLINA	OKLAHOMA
NEW YORK	S. CAROLINA	RHODE ISLAND
PENNSYLVANIA	TENNESSEE	WISCONSIN
VIRGINIA	TEXAS	W. VIRGINIA

On Orders Amounting to $10 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ARIZONA	CALIFORNIA
COLORADO	FLORIDA
IDAHO	MAINE
MONTANA	MASSACHU'TS
NEVADA	N. HAMPSHIRE
OREGON	NEW MEXICO
UTAH	NORTH DAKOTA
VERMONT	SOUTH DAKOTA
WYOMING	WASHINGTON

We make no charge for Boxing and Packing. We Do NOT pay freight on orders amounting to less than specified, nor unless one-fourth cash is received with order, nor on shipments by express.

GRAPE VINES—In order to carry out our policy of furnishing only the BEST, we maintain a nursery at Portland, N. Y., in the heart of the famous Fredonia—Chautauqua Grape Belt, which produces the finest vines grown in the U. S. We are headquarters for all the leading Commercial sorts.

WARNING—We are sole owners of the names Black Ben, Champion, Delicious, King David and other leading commercial apples, Gold plum, Stark-Star grape, etc., all of which are our Trade-Marks, duly registered in the U. S. Patent Office under the new law approved Feb. 20, 1905. Planters are warned against infringers offering trees under these names or trees claimed to be "just the same." We offer the GENUINE at prices as low as GOOD trees can be produced. Wise buyers will take no chances.

STARK TREES SUCCEED
WHERE OTHERS FAIL—

BECAUSE, three generations of Stark Nurserymen have made the production of the BEST trees their life study, their life work;

BECAUSE, Stark Trees are produced under an exact science from the time the seed are selected until the tree is delivered carefully packed for transportation;

BECAUSE, in selecting buds and scions only healthy, vigorous, highly prolific trees of the best strains are used as parentage;

BECAUSE, a tree grown with all conditions favorable has high vitality and will withstand climatic rigors and unfavorable soil even better than the stunted weakling propagated in just such uncongenial surroundings;

BECAUSE, having eight nurseries in five states, each sort is grown under the most favorable conditions of soil and climate, resulting in hardy, healthy, thrifty trees that LIVE and BEAR;

BECAUSE, we are constantly on the watch, not only for valuable new varieties of fruits, but for the best strains as they are developed. As soon as an improved strain is found it is propagated and the inferior discarded;

BECAUSE, only THE BEST roots, scions, soil, location, labor, cultivation, pruning, digging, storing and packing enter into the production and handling of Stark Trees. We ask for your orders

BECAUSE, Stark Trees have given satisfaction in every state and territory for 80 years, with the result that Stark Nurseries have constantly grown (the only true test of merit) until they are now the LARGEST IN THE WORLD. We are not "here to-day and gone to-morrow."

APPLE SEEDLINGS—We offer for the coming season's trade several million that, owing to favorable season, are EXTRA FINE. They are Iowa grown from Vermont seed and our own experience has demonstrated that they are superior to all others we have used. Also a fine lot of Catalpa, Black Locust, Mahaleb Cherry, French and Japan Pear Seedlings, Plum Stocks, etc., Vermont Apple Seed.

STARK FRUIT BOOK "WORLD'S FAIR FRUITS" shows in natural colors and accurately describes 216 varieties of fruit. Send 50 cts. and we will send the book post-paid and a REBATE TICKET permitting its return within 60 days when the 50 cts. will be refunded. Or the Rebate Ticket is good for $1 part payment on a $10 order for nursery stock.

Send for Wholesale Price List, Order Sheets, Descriptive Circulars, Half-tone Views, etc.—FREE. WE PAY CASH Weekly and want MORE Home and Traveling Salesmen. Address, STARK BRO'S NURSERIES & ORCHARDS CO., Desk 11, Louisiana, MO.

February, 1906

THE STRAWBERRY

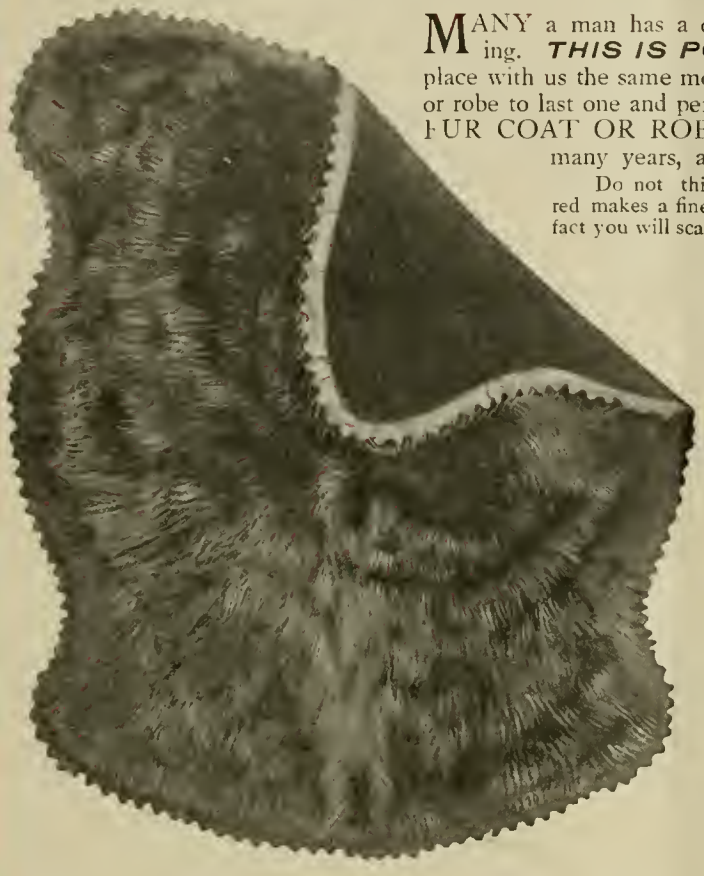
"The Lord might have made a better thing than the Strawberry---but He didn't."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Selling Hides to Butchers Poor Economy



MANY a man has a cow hide or a horse hide which he sells for almost nothing. ***THIS IS POOR ECONOMY.*** Let him send the hide to us, place with us the same money he spends in purchasing an ordinary cloth overcoat or robe to last one and perhaps two seasons, and we will manufacture for him a FUR COAT OR ROBE which we guarantee will not wet through, will last many years, and for durability and warmth cannot be equalled.

Do not think it is necessary to send us black hides; an even-colored red makes a fine robe; a horse hide makes a light robe—any color looks well. In fact you will scarcely recognize your red, brown, gray, spotted, white and brindle hides after they have been through our process and the hair thoroughly washed and scoured bright. Don't sell your hides to the butcher; you are practically giving away a coat, robe or handsome floor rug.

When You Furnish the Hide

WE can tan and manufacture a robe like this from a cow hide or a horse hide and make **FREE** a pair of Mittens from the trimmings. The robe will be soft and pliable, as warm as a Buffalo robe and lighter in weight; lined with the best green plush lining and heavy green felt border.

PRICES 40 lb. Hide and under $7.00 40 lb. Hide to 70 lb. $7.50
70 lb. Hide and over $8.00

We will Tan and Manufacture Your Hides and Skins into Anything Desired

Calf, Goat, Dog, Colt Skins, etc., are tanned by us and made into Floor Rugs with felt lining and fancy border at prices according to size of skins and linings desired. We make Mittens and Gloves from small skins at very reasonable prices and do all varieties of Mounting and Taxidermy work.

We furnish the Skins, Manufacture to Measure,

and Sell by Catalog

Our Guarantee:

We guarantee that the hides we tan and the garments we make, either from the hides you furnish us or from our own, will be soft and pliable and will never get hard; will be moth proof, water proof and more nearly cold proof than any other goods upon the market.

Galloway Coats, Robes

Mittens, Gloves

FUR LINED COATS and OTHER FURS

OUR Customers are Farmers, Physicians, Automobilists and others of this class who desire fit, warmth, appearance and durability. Our fur coats and robes are not made from pieces, but cut to your measure out of whole hides.

To Our Readers and Patrons:

We are intimately acquainted with the National Fur and Tanning Co.; its management, the quality of its own goods and the character of the work it turns out for others. We can most highly recommend its product and the honesty of its management.

THE KELLOGG PUBLISHING CO.

When You Furnish the Hide

WE can tan and manufacture for you a coat like this from two small hides or from one large hide, lined with the best padded and quilted satin body lining; Lusterine or "Iron Cloth" sleeve lining, edges of coat bound with Mohair Braid; black Ebony Olives and Mohair Cord Olive Fastenings; leather shields at arm holes and patent Wind Protectors at wrist.

PRICES

Ladies' or Gents' Long Coat -	$11.00
Ladies' or Gents' Short Coat -	9.50
Children's (Boy or Girl) -	9.00

WRITE FOR OUR FORTY PAGE CATALOG

The National Fur & Tanning Company

Three Rivers, Michigan.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 2 Three Rivers, Mich., February, 1906 $1.00 a Year

THERE is lying at the hand of the commercial strawberry grower of the Northern states today a fallow field of enterprise whose magnitude and importance may not be overestimated. It is unusual, to say the least, to attribute to our friends in the South superior initiative and executive force, but in the manner in which they have developed the business of strawberry growing, transportation and marketing they have shown high business qualities which many of us well may study and imitate.

Making due allowance for the fact that the North doubtless is a larger market for Southern strawberries than the South would be for Northern-grown berries, there yet remains a margin of opportunity so wide that it appears strange to the observer that it has remained so long unnoticed. It must be borne in mind that the South has developed many large and thrifty cities during the last score of years; that money is spent quite as freely for the good things of earth there as in the North; that the strawberry appetite is as vigorous there as here. Therefore, it appears clear, that if we sent to the South our late-grown berries we should find a market there, if not so vast as our own, still very large and ready to absorb a tremendous number of strawberries of the splendid quality we grow.

STRAWBERRIES IN A YOUNG PEACH ORCHARD—J. D. ULRICH'S FARM, THREE RIVERS, MICH.

Consider how naturally this reciprocity in business should operate. From the time the first berries ripen on the shores of the Gulf of Mexico to the opening days of June, a constant stream of strawberries are poured out upon the North from the bountiful fields of the South. It may truly be said that this immense quantity received here only whets the Northern appetite for its own crops that follow through June and up into the early days of August. And we have been so hungry and so bent upon getting all we want for ourselves that we have neglected the field offered us by the South—a field, which, properly cultivated, ought to become little less in importance than the one we have so widely opened up to the strawberry folk of the South.

When we consider the magnitude of the business in the South we may catch some glimpse of the future in this direction awaiting Northern enterprise. No actual statistics are available concerning the strawberry business done by Southern growers in Northern markets, but fugitive facts and stray figures are to be had which are in the nature of an index to this great enterprise. For instance, only a few weeks ago the Armour Company entered into an agreement with the growers along the Atlantic Coast Line system to furnish 2,000 refrigerator cars as needed to handle without delay the crop of berries grown in that one district. Add to that the business done in the central-Southern states—Alabama, Mississippi, Tennessee, Kentucky—and in the states farther west—Louisiana, Texas, Arkansas, Missouri—and we may gather some idea of the enormous size of the traffic.

It is no farther from Minneapolis to Memphis than it is from Memphis to Minneapolis. It is not to be doubted that the people of Tennessee would enjoy the plump and hardy Minnesota berry quite as thoroughly as the Minneapolis folk now enjoy the product of the lower Mississippi regions. There is no doubt that berries may be shipped as well to and command as high a price in the Southern markets as is true in the case of Southern berries brought to the North. Here, then, we repeat, is a field awaiting only intelligent initiative and executive ability to be developed into one of large importance and value to the commercial strawberry growers of the North.

And while we are on this subject, let us refer to an opportunity that lies ready for man's enterprise in the states, say of Michigan, Wisconsin and Minnesota—to a market lying right at hand. We refer to the demand for late berries that exists in all the larger Northern cities, and which might easily be supplied if the growers in the states named seriously were to set about it to develop this market. One earnest friend of The Strawberry, a retired lumberman, with many acres of cut-over timber lands, has been experimenting along these lines, and last summer he

COPYRIGHT, 1906, BY THE KELLOGG PUBLISHING CO.

received the top prices on the Chicago market for all the late berries he could supply. He found that the demand for berries was stronger after the Fourth of July than it had been at any previous time in the season.

Strawberry growers never need fear about the demand if they will study the actual wants of the markets and see to it that their products are of the character required. The idea of good fruit grows by what it feeds on; where there was one critical consumer of these products ten years ago there is one hundred today. Every other branch of horticulture proves this condition to be universal. Let us see to it that we make the most of these opportunities.

Some Strawberry Statistics

WHEN we consider the facts in connection with the commercial side of strawberry production in the United States, it is surprising how little definite information is available as to its actual or relative importance. We are told that one railway line in the Southeastern states will require 2,000 refrigerator cars to handle the crop the coming season; from private advices we learn that at Wilmington, N. C., alone 10,000 persons are engaged in the work of strawberry production in one way or another, and it is reported from dozens of places that hundreds of carloads are shipped every season from each. Yet when we go to the Agricultural Department at Washington, or to the Census Bureau, and ask for figures, the results are decidedly meagre. However, from L. C. Corbett, horticulturist of the Agricultural Department comes an interesting letter on the subject, from which we quote:

"I regret to say that we cannot place at your disposal any published reports which give a summarized statement of the relative importance of the several commercial fruits grown in the United States. The only reports which we have bear exclusively upon the value of these products in the United States, and we cannot give you any information concerning the importance of these crops in other countries except in a general way.

"From the figures at hand it appears that apples stand first in commercial importance of all the fruits grown in the United States. Second to the apple seems to be the strawberry, which, according to the latest figures available at this office, has a commercial value of about $15,000,000 annually, while the value of the apple crop is in the neighborhood of $60,000,000. The grape industry follows third in the list and is valued at something over $14,000,000. The other fruits are of minor importance, the value of peaches and nectarines probably being in the neighborhood of seven or eight million dollars. There is no other small fruit which approaches the strawberry either in the extent of the industry or in commercial value. The strawberry is a very cosmopolitan plant, being able to adapt itself to almost every soil and locality within the confines of the United States. There are some few restricted areas where it requires special attention for the cultivation of this crop, but along the Atlantic seaboard and the great central portion of the United States it is a very important commercial as well as garden crop. In European countries the strawberry is of minor importance as compared with it in America. They do not depend so exclusively upon the type of berries which are popular in America, but have given more attention to the so-called Alpine, or ever-bearing berries.

"During the census year of 1900 the average yield per acre was 1,700 quarts of strawberries, and the total acreage in the United States was 151,373."

These are interesting facts and figures, so far as they go; but they do not go far enough. An interest so large and representing so many people ought to command the attention of the census authorities and the statisticians to the extent that fairly complete data concerning it be obtained and published. Strawberry folk everywhere, especially those engaged in its commercial production, should unite in an effort to secure such attention at the hands of the authorities at Washington.

Jug-Handled Reform Ideas

WE have it on the authority of the Washington correspondents that a strong lobby of commission men representing the large trade centers, is now at Washington demanding the abolition of the private-car lines because—these car lines are wrong in principle and a private monopoly of gigantic and unholy power? Not at all! These commission men are compelled through the operation of the private-car lines to buy from the strawberry and other fruit growers at the shipping points, instead, as formerly, of merely handling consignments and receiving their 2-per-cent commission whether the grower got a penny or not. They prefer to return to the old way and compel the shipper to take all the risk—and are asking the government to help them out.

It is hardly necessary to point out the one-sidedness of this proposition. Just in so far as the private-car lines have relieved the grower of bearing all the risk of sending his produce to a stranger hundreds of miles away over whom he could have no control, they have served a good purpose—perhaps the only good thing that may be said of an institution so inherently a monoply. And when the commission men seek to destroy this monopoly in order that a certain degree of monopolistic power may be restored to them, they deserve nothing but defeat.

Good citizenship considers the general welfare. If the general welfare demands the abolishment of the private-car lines, and this journal believes it does, all interests should ally themselves together to abolish those lines, not because they destroy a monopoly some happen to enjoy; not because they give the shipper a chance and compel the commission man to work a little harder to make a living; but because it is right—and right never did harm to any honest man.

Strawberry Growers Organize

COOPERATION is a principle that it is well to put into actual practice as generally as is possible, and it is with pleasure we note that strawberry growers are discovering it to be to their advantage to organize for cooperative effort and mutual benefit. One such organization we know of in Tennessee is getting ready for the season of 1906 with large prospects of success, and it ought to set other folks to thinking. In a note to The Strawberry its secretary and treasurer, A. W Freeman, writes as follows concerning it:

"We are known as the Nashville Strawberry association, organized last August for the mutual benefit of the growers, and we hope that we may realize more uniform prices for our berries. Our object is to sell direct to those who buy in carload lots—to sell by wire to their representatives f. o. b. Nashville. We shall endeavor to give an honest pack and full quarts of clean, ripe berries. We confidently expect to have in our association by next berry season 25,000 crates of twenty-four quarts of Gandys and Michel's Early to market." White's Creek, nine miles from Nashville, is the seat of this important enterprise.

It will be observed that there are two elements in the plan of this association—to help themselves and each other, and to market good berries, honestly packed. Our Tennessee friends may not lay too much stress upon the latter; indeed, they may be very sure that if the berries are good and packed "on honor", they will find more business awaiting them at top prices than they can handle. The market with too many first-class strawberries, put up by those known to act "on the square", never has existed in the United States.

The Castleberry (Ala.) Fruit Growers' Association began shipping cooperatively in 1902 with but thirty-two acres in the association. Reports show that the total net returns from that year's crop were $13,342.40, or an average net return per acre of $416.95. The highest net returns per acre were $533.13, while the lowest net return to any individual member of the association was $300.58 an acre.

Suggestions for February Work

FEBRUARY weather usually is too severe in the Northern states to admit of any outside work, but this does not mean that the strawberry grower is to remain in idleness. This season of cold and quiet is the very time of the year in which to prepare for the inevitable rush and bustle of fruiting time, which will be with us much sooner than now we think it will as we look out over the broad fields of snow-covered vines. Every strawberry grower should have some

CUT 1—AT WORK AT THE CRATE BENCH

place about the farm where an old stove may be set up and a comfortable workshop improvised, and here, while the northerly blasts sweep and Jack Frost engraves his fantastic pictures in white upon the landscape, the man of forethought and enterprise may do a lot of things that will make his summer work lighter and pleasanter, to say nothing of increased profits and the economy resulting from this preparation.

For instance, there are the crates and boxes to be made. The first thing to do in this work is to make a crate-form like that shown in Cut No. 2. Full instructions appear under the cut. Observe the man at work making crates at his bench. You will see that the form holds the crate in place as he makes them up, leaving his hands free to work with hammer and nails. One man can make 150 of these crates in a day.

There are also the quart boxes to be made up and placed in the crates, bottom side up, so as to prevent any dust or dirt from settling into them. When the quarts are all placed in this manner they may be stacked on top of each other in small space, in readiness for packing time. The stapling machine shown in Cut No. 7 is one of the most economical devices ever made, and effectively solves the box-making problem.

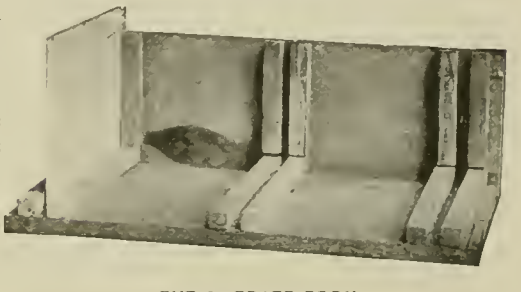
Then there are the neat and helpful head stakes showing the different varieties, as indicated in Cut No. 8. These stakes should be nicely painted, which adds not only to their appearance, but to their keeping qualities as well. The stakes shown in the cut serve a double purpose—they indicate the varieties and they show the proper method to set plants to mate them properly so as to secure perfect pollenation. You will observe that the first stake to the left represents Excelsior, then two Warfields, and third, Senator Dunlap, which is followed by Warfield. Excelsior, which is an extra-early bisexual, will furnish pollen for Warfield's first bloom, while the Dunlap, a later bisexual, supplies the later bloom of the Warfield, which is a pistillate. This is what we call congenial mating. All pistillates should be mated by two bisexuals, one a little earlier and one somewhat later than itself.

In making these variety stakes we find that a good material to use is two-inch strips, one-half inch thick and about two feet long. This allows them to be driven into the ground a distance of from six to eight inches, and still leave the names of the varieties exposed to full view. One who has not seen these neatly painted and lettered stakes may not realize how much they add to the appearance of the place.

Straight marking stakes, placed at intervals across the fields in order that the grower may have something to assist in keeping the rows from going awry, are another valuable aid. No matter how beautiful the plants may be, unless they are in straight rows the field will present a disappointing appearance. An example of straight rows with neatly lettered head stakes is shown in Cut No. 3. It also indicates how properly to mate Gandy.

Then there is the marker, so important at setting time as an aid to straight rows, and it does the work so quickly that it is quite impossible to do without one of them. Cut No. 6 shows one wheel of the marking device on the farm home of The Strawberry. Three or four of these wheels may be attached to a frame. The number used will depend, of course, upon the number of rows you wish to mark out at a time. You will find suggestions under Cut No. 6 that will make this work easy.

Another convenience for the strawberry grower is the packer's table. This should



CUT 2 CRATE FORM

TAKE a plank two inches thick, sixteen to twenty inches wide, and two feet long. Nail a six-inch board to the back of this, then put on one-inch strips to form the slots, as shown in the picture, and the job is done. These slots hold the ends and center pieces of crates in their places while the sides are being nailed on. One end of crate is shown in slot.

be made about as tall as an ordinary table, the length to be determined by the size of the packing shed and the amount of business to be done. The top should be sand papered and polished quite smoothly, so if berries fall upon it there will be less danger of bruising them.

Pickers' stands or carriers are a necessity upon the well-managed strawberry farm. You will find under Cut No. 5

CUT 3—AN IDEAL STRAWBERRY FIELD, SHOWING VARIETY HEAD STAKES

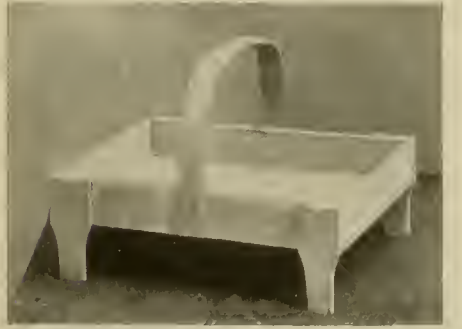
full instructions for making an inexpensive stand, and under Cut No. 4 instructions for making a more substantial carrier.

Then there are the smaller, but no less important, conveniences that ought to receive your attention at this time. You ought to have a neat and attractive label, for you should build up a trade peculiarly your own, and a label is a great aid in that direction. Letter heads, envelopes, pickers' tally tickets, punches—these are essentials to economy of time and large success in conducting a strawberry farm. Then the cultivators, tools and all the farm implements should now be receiving your attention.

During the winter days that are fine that pile of manure which was left in the barnyard last fall should be hauled out to the patch and spread at the earliest possible moment. And if you haven't mulched yet, cover your plants now, both for protection from freezing and thawing and in order that your ripening berries may have a sweet clean floor upon which to mature. Your customers will appreciate the cleanliness of your fruit more than any other one thing about them.

CUT 4--A SUBSTANTIAL CARRIER

THE cut herewith shows a simple, strong and convenient carrier. We prefer this four-box carrier to the six-box form because they are more quickly filled and thus the berries are the sooner taken in out of the sun.

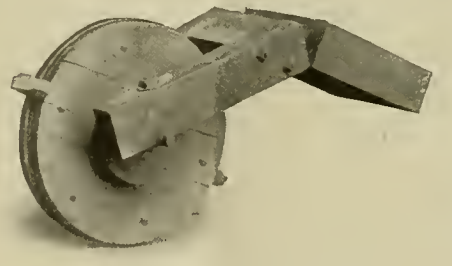


CUT 5---AN INEXPENSIVE CARRIER

TO make this carrier, or pickers' stand, take a board one-half inch thick, ten inches wide and fifteen inches long. This will form the bottom. Common lath nailed to each side and ends will serve nicely to hold the quart boxes in place. Now take two-inch strips one-half inch thick and five inches long for the legs. A piece of common barrel hoop or basket handle will give good service as a handle.

And finally, now is the time to study your catalogues and determine what you will do when it comes time to set your plants. If you know what varieties you prefer, and desire to secure just the right ones, you will make a serious mistake if you do not get in your order for plants at once. No matter how fine condition your land is in, or how favorable the season, if you don't have plants at setting time, and good plants at that, you will find all your work of little avail. More folks fail at this very point than at any other. Good plants of desirable varieties lie at the very foundation of successful strawberry production.

COMMERCIAL strawberry growers who make large shipments of the fruit to distant markets are watching with keen interest the probable action of Congress upon private-car line and general railway-rate regulation. Congressman Shartel of Missouri, in a recent interview, indicated that he had been studying the question from the strawberry man's point of view. He said: "We are most decidedly in favor of the regulation of private-car lines. Down about Neosha in my state we have one of the greatest strawberry districts in the country. Last season we sent out no less than 150 car loads, and on one occasion sent a solid train load. The best rate we could get from the private-car lines was $90 per car to the nearest market, the charge made for icing. We discovered it cost the company just $25 for that ice, and yet we had no way to reach it and force a reasonable charge." Since those words were spoken President Roosevelt's annual message has dealt this monopoly a telling blow, and the whole subject has come before the public in a way likely to force congressional action.



CUT 6---A SIMPLE MARKING DEVICE

TAKE a wheel sixteen inches in diameter and tack two cleats on the rim directly opposite each other. Every time these cleats come in contact with the surface of the ground they make a dent in the soil. Where a sixteen-inch wheel is used these dints will come every twenty-four inches in the track made by the wheels. This simple device is a great help in getting your plants set exactly the same distance apart in the row. A glance at the above cut will show that the wheel is set in a frame with hinge. This frame is bolted to a two-inch board, which should be seven feet long; one wheel frame bolted to each end and one directly in the center mark three rows 3 1-2 feet apart at a time. The hinge is to allow the wheel to adjust itself to any unevenness of the ground, and thus make a continuous mark to follow in setting. The best way to draw this is by means of shafts, and a man will draw it straighter than can be done with a horse.

Making Fertilizer Without Cost

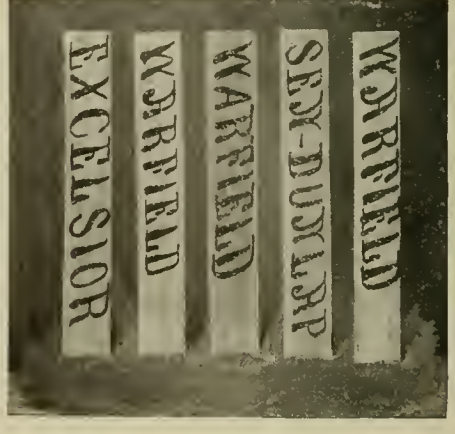
ONE way of making valuable fertilizer without cost is suggested by a New Hampshire preacher, an itinerant Methodist, whose travels over that portion of the earth bounded by his conference limits has taught him a thing or two worth knowing. He tells in Farm and Home how, when he moved to his present abode, "the sink drain ran out on the garden to the west of the house, and in warm days the odor could be readily distinguished from attar of roses.

"I had a tile drain laid from the sink spout to the barn cellar and last spring, when ready to plant garden, I had a one-horse farm cart six times full of well rotted leaves, meadow hay, vegetable tops, weeds which had not gone to seed, etc., which I had made in that barn cellar by allowing the sink water to drain on it and the chamber slops to be turned on the pile each day.

"I made no special effort to see how

CUT 7---MAKING BOXES WITH THE STAPLER

CUT 8---HEAD STAKES
Indicating way to mate plants to insure pollenation



much I could make, but kept putting refuse on as it got soaked. I applied it to garden and I have had no reason to find any fault with the quality of it as a fertilizer. I kept the weeds out and gave it clean culture and have the satisfaction, not only of abundant crops of everything, but also the reputation of the best garden in town."

Nothing will more quickly add that all-important factor, humus, to the soil, than decaying vegetable matter, and when to that is added the refuse waters of the house and the kitchen slops, an ideal fertilizer is created. We pass this suggestion along to strawberry growers who may have access to great quantities of autumn leaves and other matter which, instead of being burned, should be turned into fertility and food and cash.

Spring Setting in the South

SOUTHERN growers who insist that success with strawberries in their latitude can be had only by setting their plants in the fall should learn a lesson from J. E. Miles of Friendswood, Tex., whose experience as a money maker with strawberry plants certainly gives him a right to be heard.

Mr. Miles buys his plants in the North because they are dormant when dug and shipped, sets them in April and says that "nearly everyone of them will grow and by July 15 will have run together." He keeps the runners off from that date until early in August, when he lets them make some good strong plants on each side of the row, and after a good rain in August or September, sets out two-thirds of an acre more, and if any die keeps filling in until he has a perfect stand. He cultivates from April to November with a fourteen-tooth adjustable harrow and mulches them with prairie grass or rice straw, placing no mulching over the plants, except in extremely cold weather, but spreading it thinly between the rows.

For fertilizer Mr. Miles uses about thirty two-horse wagon loads of manure to the acre the fall previous to setting out the plants, and raises some kind of winter garden crop in order to get the manure well mixed with the soil. He finds this the most satisfactory of all fertilizers.

Mr. Miles appears to have made Excelsiors and Lady Thompsons his favorites. He says he thins the former to eight inches apart; the latter to from fourteen to sixteen inches apart. We shall let Mr. Miles tell the balance of the story in his own words:

"I had ripe berries to sell by the quart from January 4 until February 20, when I sold my first crate at Galveston for $4.20 net. The highest price I received that year was March 2, two crates to Colorado Springs, $12.53 net. (Berries sold for $15.00.) April 14 we had a hail storm almost ruining one crop of late berries, but one-half acre of Excelsior made me over $240 before that date. Total for year from two acres, 170 1-2 crates; average per 24-quart crate, $2.42; net returns, $412.94.

"In 1903 I sent four quarts to Thomaston November 20, began to sell by the crate December 10, shipped every few days until February 14, and from 1 1-4 acres of mostly new Excelsior plants set out in October I had checks for $156.06, having sold thirty-eight 24-quart crates averaging $4.10 per crate. The next shipment was six weeks later on account of a severe freeze and continued shipping until May 8. Total crates from two acres, 136; average, 2.84 2-3. Cash received, $387.14.

"My 1904 crop first berries were sold December 24 at 40 cents a quart net. During January I sold ten crates and thirteen boxes, averaging $7.42 per crate. One crate I sent to Chicago. Check returned $7.74; one crate to Dallas, Tex., $7.75; one crate Dallas, $8.40; one crate to Omaha, Neb., $9.95 (this sold for $12.00 in Omaha.) Total berries sold in 1904 from two acres, 173 crates, six boxes, averaging $3.23 per crate; returns $571.77.

"In 1905 one acre of my berries was a new variety and was worthless. One acre of Excelsior ripened late on account of freezes. The first crate sold March 27. Total for year seventy-six crates, averaging $2.52. Checks received for $191.41. I had ripe berries as early as October 15 one year; other years about November 15, and by covering the Excelsior berries as I have spoken of before I always have ripe berries in the patch all the time in the winter.

"I have a few special grocery men I supply with my berries and the remainder I consign myself to reliable commis-

Evergreens

that are hardy in your soil and climate. You can have a perfect wind-break, grove, hedge or screen of hardy evergreens at a very low cost; also forest trees, etc., all nursery grown. I offer

50 GREAT BARGAIN LOTS AT $1 TO $10 PER 100

freight prepaid to your station. My catalog tells my own experience in planting a five-acre grove on the bleak prairies of Minnesota, that is now worth $5,000. Don't miss this chance—send for my free catalogue and bargain sheet today.

D. HILL, EVERGREEN SPECIALIST, DUNDEE, ILL.

The Basket with the Rim

That is the distinguishing feature of the

Wax Lined Paper Berry Basket

the height of Clean, Odorless, Taintless, Pure and Perfect Basket Perfection

If you are a **Berry Grower** you want our **Basket** and we want your name.

MULLEN BROS. PAPER CO.

Send for Free sample and catalog of this 20th Century Basket. Dept. B. ST. JOSEPH, MICH.

Special Fertilizers for Strawberries

peaches and other fruits. To give color, flavor and substance to the fleshy parts of the fruits requires a good supply of soluble plant food, especially potash. **Quality is what counts in fruit**, not quantity

WE MAKE SPECIAL BRANDS FOR THE DIFFERENT FRUITS

We sell goods direct to the consumer at wholesale prices where we have no agents.

For further information address

THE BUFFALO FERTILIZER COMPANY

BUFFALO, N. Y.

sion houses; for I know better where my fruit will carry than any one else does. We are extremely careful about picking, sorting and packing, all berries being turned out on table and carefully inspected; and we think it pays."

Of course it pays; pays big for the present, but bigger still in the building up of confidence in your product. In fact, every extra touch given the strawberry, from planting until they are sold to the consumer, pays, and in more ways than one.

The Family Strawberry Bed

ARE you preparing to set out a fine and thrifty lot of strawberry plants this spring as a part of your family garden? You can't afford to neglect it, and now is the time to make preparations. We know of nothing else that more surely brings the several members of a family into a common interest in the garden than the strawberry bed; for the man or woman, boy or girl who doesn't like big juicy strawberries is so rare a specimen of humanity that you can mark down zero as the number of that kind.

Every consideration of pleasure, comfort and economy urges the family strawberry bed. In the first place, you get your berries just when you want them, and who can prescribe a more inviting dish to set before a guest who has "just dropped in" than luscious, red strawberries, submerged in cream! And the visitor not only will enjoy the feast, but will take positive delight in helping to pick the great fresh, cool fellows which actually appear to want to be eaten, so eloquently do they invite you to enjoy their richness.

Then the pleasure you have taken in such an incident, as well as in the thought that the feast was largely the work of your hand, while the cost—well, the cost has been amply repaid in the satisfaction you have received. We think more than repaid, for does not the strawberry culturist find health and pleasure in the very work itself?

The strawberry patch becomes the rallying point for the boys and girls of the family, and if they be given general charge of the bed and encouraged to make it do its best, there can be no better home influence; nothing else will serve a larger purpose in keeping them interested in the home and its affairs. Let the young folk have the surplus, and it will encourage them to go on and develop the business into something of real importance in their lives.

If you reside in the city, you will find respite from its noise and bustle in your garden. If you reside in the country, you will find it impossible to depend upon the markets for your supplies of strawberries, and oftimes must go hungry for the fruit above all others you like the best. And whether you reside in town or country, if you have an abundant supply of berries you may enjoy them to the full as you take them from the vines, and you may be sure of an ample supply of them at canning and preserving time.

And it will surprise you to learn how many quarts of these delicious berries may be grown on a few square rods of ground.

AMERICANS who have gone to Cuba to make their homes on that delightful "Pearl of Antilles," confidently expect to develop a large strawberry interest on the island when the new line of railway now being constructed out to the very tip of the Florida keys shall be completed. This line will shorten the run by boat from Havana to Florida down to something like the distance between South Haven, Mich., and Chicago, and fast trains will carry the fruit to New York where there always is a strong winter market for these berries.

Strawberries and Chickens

WHAT may I do to employ my time throughout the year?" is an inquiry that frequently comes to us. We answer, raise poultry and lots of it. You will find it makes an ideal combination. One day last summer we visited a nine-acre farm a few miles from a Wisconsin village. The owner had combined fruit-growing with poultry, and had become well versed in both. His little farm was paying him something like $2,000 a year net. He had bought it on contract a few years before, had paid out for it, and was as independent as a man can be in this world. When we left the train at his station there he was with great baskets of fruit and eggs and some of the finest poultry imaginable. All these were going into Milwaukee, some twenty-five miles distant, where he had built up a fine trade for all his products.

This farmer finds berries and poultry an ideal combination. He markets eggs, poultry and fruit all at one trip during the summer months, and in the winter time gets big prices for eggs and broilers while his plants lie sleeping beneath their winter mulch.

Then he finds that the large amount of manure produced by his fowls is a great saving to him, supplying as it does that element so costly in purchased fertilizers, the nitrates. They also discourage insect pests.

One other point about this particular man and his place—he is a believer in thoroughbreds and doesn't allow a "scrub" fowl or plant to get near his place. His poultry stock is of the finest strains, and he has so many calls for eggs for breeding purposes that he finds it difficult to respond to them all at certain seasons of the year. Still another point—he uses the latest and best makes of incubators and brooders and finds his success quadrupled by this method. In a word, his farm is run on the same business principles that obtain in a great factory. He buys the best of everything, works only with the best of conveniences, and sells only high-grade products. Combined with pluck and energy these will win success every time.

Can you do better than follow the example of this Wisconsin farmer?

Old Trusty

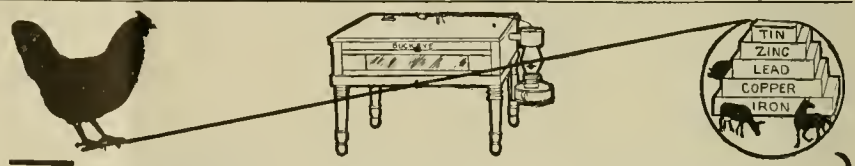
The Incubator Man's crowning success. Years of experience back of OLD TRUSTY. Three seasons of satisfaction to thousands of users. Don't experiment with untried, new models. Buy OLD TRUSTY made of Redwood and Copper, with double walls, case within case, rapid circulation of warm water, even distribution of heat to all parts of the egg chamber—the

INCUBATOR THAT RUNS ITSELF

and pays for itself. 20% gain in oil saving over last year. 35% more economical than any other machine. Good hatches the first time and every time. OLD TRUSTY **must** please you, or your money back. Sold on 40, 60 and 90 day practical test, with responsible 5 year guarantee, back of you, when sale is made. **Johnson says to tell you** his new Incubator Book is better than ever. 300 illustrations that will redden the blood and quicken the pulse of chicken raisers everywhere. Over 100 pages of advice, suggestions, plans, tables, records, etc., all written by Johnson himself, from the standpoint of the things he knows about poultry by experience. A book you need. Worth $1.00. Free for the asking. Just write today to

The McClanahan Co., Eugene, Ore., and Los Angeles, Cal., Pacific Coast Selling Agents.

M. M. JOHNSON CO.,
Clay Center, Nebraska.



THE AMERICAN HEN OUTWEIGHS THEM ALL. STATISTICS PROVE IT.

Get a Buckeye on **FORTY DAYS TRIAL,** As low as **$5,** or 200 egg size, **$12.75,** or RENT one at **$1** per month. Let rent pay for it, *we paying freight,* or buy *parts* and *plans* and *build one.* They are self regulating. Guaranteed best work and material, and to hatch every hatchable egg. A town lot is large enough for the business, but a farm is better. Everything the poultryman needs of Best Quality and at Lowest Prices.

A 6 ft. by 3 ft. Iron Roof Colony House, complete, for $5.75. Foods with no Grit in them. A 25c package Buckeye Chick Starter will save you dollars.

Catalogue Free. BUCKEYE INCUBATOR CO., Box 49. SPRINGFIELD, OHIO.

Starting a Farm Without a Dollar

By Fred Newton

FRED NEWTON

STARTING a strawberry farm without a dollar of capital as I did, and having won sufficient success to justify my faith in the strawberry as a basis for successful business enterprise, I feel a peculiar interest in The Strawberry magazine and what it stands for, and wish to add a contribution of good cheer to its splendid teachings. What I shall say here is not for the purpose of personal publicity, but in the hope that my experience may encourage some honest, but faint-hearted man, out of work, out of money, perhaps, and seeking for a means of livelihood, to turn to the business that requires so little capital and so little time to secure desired results—strawberry production for market.

One advantage I possessed at the beginning of my career as a strawberry man was my knowledge of and experience in carpentering. For sixteen years I had been engaged in that work, and it is a good thing to know how to handle a hammer, saw and plane when you go out to start a home in the wilderness. But though I was a good carpenter, and was employed a large share of the time; and although my good wife was a tailoress and earned many a dollar at her trade that helped us out of the tight places, yet it appeared that every dollar we earned was taken up in the purchase of the necessaries of life, and I saw no chance of getting ahead in the city.

So I came out to Holland, about ten miles from Toledo, Ohio, and bought sixty acres of wild land, all but one acre covered with scrub-oak and underbrush. This was bought on a contract, without paying one dollar down. I moved out to the land in 1901, and "batched it" until I had built a house and barn; and these I built on borrowed money, for all I had by way of capital was a reputation for honesty. But I was bound to have a home of my own—a productive home, rather than one that took every dollar my wife and I could raise just to keep going.

On the first spot of cleared ground—and it was a very small patch—I set out as many strawberry plants as it would stand, and although I was an amateur, I succeeded so well that I now have two and a half acres in berries, and am getting ten more in readiness for plants to be set next spring. I also have fifteen acres in orchard, composed of apples, peaches, plums and cherries, and I now have made sufficient payments on my land to put everything on the safe side of the ledger.

That is not all. My work in clearing up and planting out the land has doubled its value, and the scrub land of five years ago is today worth $80 an acre. Of course I have worked hard, and I have had to do some close planning to bring about these results, but that is what makes the work really interesting. Then too, I have not forgotten that beauty has a value all its own, even if it may not be expressed in dollars and cents. My buildings though not elaborate, are well-planned and situated among nicely designed driveways, greensward and flower beds. And neither my wife or myself would entertain for a moment the proposition to go back to city life.

> MOTHER EARTH may offer her choicest cradle, the sun may lavish his brightest rays, the gentle showers flood down upon the balmiest winds of spring to nourish the infant plant; yet if this child of the First Great Cause has been touched by the blighting breath of decay, or is the offspring of perverted parentage, all the kindly care of loving Nature, aided by the hand of man, only emphasizes more strongly that 'Whatsoever a man soweth, that shall he also reap.'"

Who can measure the advantages of country life, with its simplicity, its economy, and its wide opportunities for the development of self-reliance and independence, not to mention a competence? Here we have our own cows, chickens and pigs, and vegetables and fruits in abundance. And we have built up an independent trade so great that I never have been able to supply the demand for my fancy strawberries. Even with the ten acres I expect I shall have to disappoint some of the people who would like to become my customers.

The fact that I was in debt never caused me to forget that the strawberry requires large quantities of manure, and every season my beds have been generously supplied. I also have cultivated intensively, and have produced high-grade berries. In packing I always have aimed to make the box first-class from top to bottom, with the result that my customers stay with me and my trade is permanent. Next season I shall get out an attractive label so as to acquaint dealers with my berries, and when my whole field is in bearing expect to do a large and satisfactory business.

Of the general question of the availability of strawberry production to the man of limited means, I am convinced that nothing else offers so large an opportunity in this direction. There is no other line from which one may get so large returns from so limited an investment of capital in so short a time. If one engages in tree-fruit culture, he must wait for years before getting back a dollar. But with the strawberry your plants set out one spring yield you a generous return the next, if you have followed proper cultural methods. It is a business, too, into which the inexperienced may venture, for one may begin on so small a scale as not to feel it, and then as his experience increases he may add to his area, confident that by so doing he will add largely to his income.

There is another feature that is not always recognized, and that is the small area upon which one may earn his living with strawberries. When I was a young man I lived on a farm in Michigan—spent my entire boyhood and youth there. The man who made $50 an acre a year was considered a good farmer. In those days it was not so important, perhaps, for land was not so high as it is now. But compare that with what one acre of strawberries will earn. Instances where an acre has produced quite $1,000 are numerous, while it is a common thing for

THE HOME OF MR. NEWTON

A KALAMAZOO DIRECT TO YOU

WHY not *save money* in your stove and range buying?

Why not get a really *good* stove or range while you are about it?

Here's a Kalamazoo Royal Steel Range—one of the many of the Kalamazoo-direct-to-you family.

It is guaranteed, under a $20,000 bank bond to be *strictly high grade in every respect.*

The body is made of Wellsville blue polished steel—the highest grade steel procurable.

Not an ounce of scrap iron enters into it. The tops and centers are cut and braced in such a manner that we guarantee them against warping for *five years.*

The linings are heavy and the flues and all other parts where it is necessary are lined with *genuine* asbestos, held between two sheets of steel.

The oven is square and large, with a bottom that *cannot* warp or "buckle." The oven ventilation is *perfect*, making it a quick and even baker.

The oven is equipped with patented oven thermometer which gives perfect control of the oven's temperature and makes good baking and roasting an easy matter. It saves time, trouble, and fuel, and is guaranteed not to get out of order.

The hot water reservoir is large; is lined with white enamel and is easily removed for cleaning.

The fire box is equipped with either a duplex or a dock ash grate as desired, and either hard or soft coal or coke or wood may be used for fuel.

It is handsomely finished, all the ornamental parts being heavily nickeled. We do all our own nickel-plating, and *do it right.*

The riveting, the mounting, the finishing, are all done *by hand*, by expert workmen, and we guarantee that there is not a better designed, a better made, a better finished, or a more durable stove or range in the world, than is *the Kalamazoo.*

Oven Thermometer

Quality is our first consideration, and our 32 years experience in building and selling stoves and ranges has taught us *how* to make a range which we can put in comparison with any other in the world.

Quality should also be *your* first consideration. You cannot afford to buy a *poor* range at any price, especially—*and here's the point*—

When you can buy this high grade Kalamazoo—or any other of the Kalamazoo line of ranges, cook stoves, base burners and heating stoves of all kinds—*at a price lower than your dealer pays for stoves and ranges not the equal of the Kalamazoo.* Please read that again.

You get a Kalamazoo, *freight prepaid*, on a 360 days approval test, guaranteed under a $20,000 bank bond, with privilege of returning to us at any time within 360 days, if it shows any faults or defects—and all at a *less price* than your dealer pays for many stoves and ranges not nearly so good.

Here's the secret:

We are manufacturers—actual manufacturers and we sell to you *direct from our factory* at *lowest* factory prices, saving you all dealers', jobbers', agents', and middlemen's profits and commissions.

We have more than 50,000 customers in all parts of the United States. Their letters show that they have saved from $5 to $40 by buying a Kalamazoo direct from our factory.

We will be glad to send you the names of our customers in your vicinity. Let *them* tell you what *they* think.

The Kalamazoo line is *complete*—embracing ranges, cook stoves, base burners and heaters for fuel of all sorts, all of late design, handsome pattern and beautiful finish.

Send for our catalogue.

You will find in it the stove or range exactly suited to your purpose, and you will be able to purchase it at a money-saving price.

Don't you think it a proposition worth looking into? Let us send you our free catalogue and price list. You'll be interested and pleased.

Ask for Catalogue No. 348.

Please Remember:

We are actual manufacturers, not mail order dealers.
We have more than 50,000 customers—all satisfied.
You run no risk, as we give you a 360 days approval test.
We pay the freight.
We make you actual factory prices.
We sell you a stove or range not excelled by any in the world.

Kalamazoo Stove Co., Mfrs., Kalamazoo, Mich.

men to take off anywhere from $500 to $700 worth of berries from an acre of ground. Even the amateur can make several hundred dollars from an acre of strawberries, and if he has been careful to pack his fruit according to approved form, will find no difficulty in building up a business for himself that is sure to grow with the years, if he is faithful to his work and takes pride in his vocation.

Holland, Ohio.

IT is doubtful if in the history of horticultural journalism a new publication has received more flattering reception than that which has been accorded The Strawberry by the public. The way subscriptions have poured in from all the states of the Union and from Canada and Mexico is matter of just pride and encourages its publishers to believe that the place it is to fill in the lives and interests of strawberry folk everywhere will be a large and important one. Not only have the subscriptions come to us in an unprecedented way, but accompanying many of them are letters of cheer and good-fellowship even more inspiring than the cash testimonial to their good faith and sincere interest. To our friends everywhere, both subscribers and advertisers, we take this earliest opportunity to acknowledge our indebtedness and to express the deep gratitude and satisfaction we feel in consequence of their manifold and substantial manifestations of approval and appreciation.

My First Attempt at Growing Strawberries

By O. J. Wigen

IN the spring of 1903 I bought seven hundred strawberry plants and set them out in a way I thought was o k, but in the fall I had only twenty-four plants alive out of the seven hundred. That set me thinking. The conclusion was that I myself was to blame and I decided to rectify it, and so set to work studying, "Great Crops of Strawberries and How to Grow Them."

With this book as my only guide I started plowing one and one-fifth acres of land in the fall of 1903 and in the spring of 1904 put on twenty-five loads of manure, plowed it under, harrowed the ground four times and flooded it twice. May 3 (having received 8,500 thoroughbred pedigree plants), I started planting in rows thirty inches apart and put the plants thirty inches apart in the rows. Three days after I began cultivating with a Planet Jr. twelve-tooth harrow and pulverizer and continued cultivating every eight or ten days all summer, up to the first part of October, besides cultivating after each rain.

During the summer I also sprayed five times—three times with Bourdeaux and twice with Bourdeaux and Paris green mixed, but my spraying was partly a failure, as I first started spraying to cure when I should have started spraying to prevent.

For cultivating between the plants I used a home-made three-pronged fork or cultivator made from three pieces of heavy telegraph wire about ten inches long and a piece of wood about four feet long for a handle. Flatten one end of the handle so it is about 2 1-2 or 3 inches wide and about 1 1-4 inches thick, drive the short bents of the wires in to the flat part of the handle so the longest bents come flush with the end of the handle, fasten the wires about one inch or inch and a quarter from each other and having the prongs about 2 or 2 and one-half inches long and your tool is ready for use I like this tool for working between the plants better than the hoe.

Late in the fall just before mulching, I spread ten loads of manure between the rows and on April 5 of the spring of 1905 uncovered the plants by raking the mulching apart directly over the plants.

Three days after I started cultivating, turning the mulching from the next row into the one cultivated, and so on, then

sprayed with Bourdeaux. During the first rain following I put on forty pounds of nitrate of soda to an acre, distributing it along the rows, taking care to put it on the upper side of the plants on ground slopings. Repeated this May 10 and on June 10 picked my first three crates of big, red delicious strawberries,—and from then up to July 19 shipped 650 24-quart crates of strawberries from the original 8,500 plants covering about 1 1-5 acres of ground, and netting an average of about two dollars per crate f. o. b. at my ranch, Wilkes, B. C., besides which we consumed and gave away a great many berries.

Creston, British Columbia.

High Value of Farm Manure

MANY strawberry growers fail to appreciate the extraordinary value of farm manure, and frequently overlook this most important element in their work as horticulturists. The foundational manure, the fertilizer that lasts and aids in making the mineral elements of the soil available, is that made by live-stock on the farm; and the man who lets this precious element go to waste is quite as foolish as the man who would throw gold dollars into a bottomless pit. Aye, more, for life would go on and mankind be just as happy and prosperous if every dollar of gold were in some bottomless pit; but if we fail to conserve the soil that grows the world's food supplies, famine, suffering and ultimate extinction must be the lot of the race.

Writing on this subject Prof. Harry Snyder of the Minnesota Experiment Station says: "For the permanent fertilty of soil there is no fertilizer more valuable than farm manure. Its effects are often felt for ten, and on some soils even twenty years. At the Rothamsted Experiment station grain was raised on one plot for twenty years, receiving each year an application of farm manure. Its use was then discontinued for twenty years and at the end of this time the plot produced much larger crops than an adjoining plot which had never received any manure. Farm manure has such a lasting effect upon fertility because it assists in making the mineral plant food of the soil available for crop production. When manure decays it unites with the inactive mineral elements of the soil and produces compounds known as humates, which gradually become available as plant food. Hence it is that manure is valuable not only for the elements of fertility which it contains—but more especially because of its making the inert plant food of the soil more active and available for crop production purposes."

Don't let a forkfull of this richness get away from your berry patch, if you seek large and permanent success. Save all you can of that made on your own place and engage every pound of it available elsewhere. Good plants, good cultivation and plenty of barnyard manure form a trinity of horticultural fundamentals that spell success in every language, in every clime and in every season.

HOW is that boy of yours coming on? Is he interested in life? Interested in doing something for himself and earning his livelihood, or his way through the university? Have you ever talked strawberries to him as a certain and practicable method of accomplishing really important results? Never a better opening for a boy who wants to get ahead than that offered by the strawberry patch, and it makes very little difference whether you live in a country town or on a farm or in a big city. He can raise strawberries at a profit anywhere if he will take hold of the work and push it. Talk with him about it anyway, and encourage him to undertake

C. W. GURNEY
NURERYMAN
A large assortment of strictly home-grown stock. Wholesale and retail. . . . . .
Yankton, S. D.
SEND FOR CATALOGUE

A beautiful colored plate of our
New Eaton
Red Raspberry
and our strawberry catalog of valuable information about varieties with instructions for beginners. Free to all.
THE FLANSBURGH & POTTER CO., Leslie, Michigan.

Trees, Plants & Seeds
THAT GROW
Best quality. Good bearers. Low prices. Apple 4c; Plum and Cherry 12c; Peach 4c; all budded; Concord Grapes 2c; Forest Tree Seedlings $1 a 1000 up. Tested seeds very cheap. Freight paid on trees. Catalogue, English or Germaa, free. Write for it today. Address
GERMAN NURSERIES
Carl Sonderegger, Prop.
GERMAN NURSERIES,
Box 101 Beatrice, Neb.

Mention "The Strawberry" when writing.

CARFFS
LUSCIOUS NEW FRUITS
Money making varieties for every fruit grower. They are free from disease, sturdy, strong growers. Thousands of our customers are making big profits buying our plants. Everyone true to name. No disappointment. Any intelligent planter can make
$300 Profit per Acre
I grow millions of plants. My experience covers over 14 years of practical experience raising nursery stock of leading varieties and I speak with assurance. MY HANDSOME NEW CATALOG overflows with practical information valuable to every fruit grower. Send for it before you buy. It tells all about my high grade stock of fruit and ornamental trees, farm and garden seeds: and general nursery stock. Write today.
W. N. SCARFF, New Carlisle, Ohio.

Spray to Some Purpose
With the outfit here shown. Nothing to equal it for any sort of row spraying. Note that each one of the four rows is covered with three spray nozzles—fine spray from above and both sides forced under heavy pressure to every part of the plant. Sure death to every sort of pest.

IT'S THE AUTOMATIC
Wallace Row Sprayer
which costs nothing for power. Power generated while driving through wheel gearing. Pressure strong and constant. Made for any width track. Nozzles are adjustable in all directions. Sprayer also can be used for orchard work
We also make Standard and Duplex two-horse sprayers and the best gasoline engine outfit on the market. Fine catalogue, just out, gives all particulars. FREE. Write for it.
WALLACE MACHINERY CO., Champaign, Illinois.

TREES, PLANTS, ETC.
We have an unusually fine stock of One Year Old and June Bud Peach Trees. One and Two Year Old Apple, Pear, Cherry, and Plum Trees. Grape Vine, Shrubbery, Roses, Etc. Also all kinds of Small Fruit Plants. Strawberry plants by the million. Send for catalogue and price list before you buy for our low delivered prices.
CHATTANOOGA NURSERIES, CHATTANOOGA, TENN.

it. It may make a big difference in his future—may make him a thrifty, prosperous citizen with high ideals, when, if left to his own devices, with no occupation to steady him and give him poise, his life might prove something far different and less satisfactory to himself and to the world.

STRAWBERRY folk ought to be the most active in the institutes and horticultural associations, yet we find a singular degree of reticence on their part in this direction. It is seldom that the institute program has a word to say on the subject of strawberries, and the work of the horticultural societies in nearly every state is devoted to the discussion of the apple, the peach, pear and grape. As a matter of fact and cold figures the strawberry is second only to the apple in its commercial value, and it is true that more people are interested in the strawberry than in the apple. We ought to be proud of our vocation, interested in its advance and reasonably insistent upon its receiving the attention it deserves. And no one may measure the good it will do him to hear and participate in discussions relative to strawberry production in its various branches.

As to Planting Various Varieties

RESULTS in the strawberry patch depend more largely than we are apt to think upon the way in which the plants are set out. The nature of the several varieties of plants differ materially, and one will thrive under conditions which would be almost fatal to another. For instance, varieties that make a heavy, dense foliage should be grown in single-hedge rows, while those having but a medium foliage are better grown in the double-hedge row. The reason for this is obvious if we consider the necessity of ample sunlight for the denser growth and the requirements of a proper degree of shade for varieties not so protected by their foliage.

The width of the rows will be determined by the system followed in this regard. If you grow your plants in hills for market purposes, we advise that the rows be placed only three feet apart, with the plants set twenty feet apart in the rows. If grown for home use only, and the space at your command is limited, place the rows about two feet apart and set the plants fifteen inches apart in the row. Keep all runners off, and, if good cultural methods are followed, by fall the hills will almost come together.

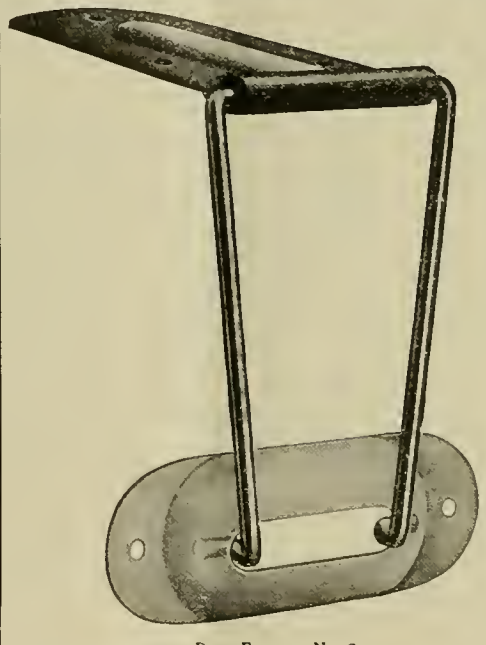
When plants are grown in single or double hedge rows for market, make rows three and a half feet apart and set the plants two feet apart in the row, but where berries are grown by either of these methods for family use, the rows can be made two and a half feet apart, as the cultivation generally is done with hand tools.

Where the narrow-matted row system is followed, the rows should be placed four feet apart. This will allow plenty of room for the plants to spread without interfering with cultural methods. Do not allow the plants to set closer than six or eight inches apart under this system, for to set them closer would result in reducing the size of the fruit. We do not advise the narrow-matted row for all varieties. Some kinds do better under this system than any other—the Gandy and Aroma, for instance, appear to yield heavier in the narrow-matted row than they do in either the single or double hedge system. In the matter of plant setting, as in every other branch of strawberry production, the grower himself must study his varieties and the conditions under which they do the best if he would win largest success.

FAILURE of the Armour Car lines to furnish cars at the right moment to the strawberry growers along the Atlantic Coast Line railway has cost the Armours quite a pretty penny. The fact that the company has paid $80,000 in

The Ryan Clasp and Hinge

For Berry Crates



Ryan Fastener No. 3

OVERCOMES ALL THE DIFFICULTIES OF THE OLD STYLE FASTENERS

PRONOUNCED BY ALL USERS TO BE THE MOST PRACTICAL AND SATISFACTORY FASTENER ON THE MARKET

Easy to Operate

Saves Time and Labor in Applying

Not Affected by Rust

The Ryan Hinge

Simple and Strong
Speedily Attached
Works Easily Under
All Conditions

The Most Satisfactory
Lid Hinge
On the Market

The Ryan Hinge

WRITE FOR CIRCULAR OF OUR COMPLETE LINE, SAMPLES AND PRICES—WE CAN SAVE YOU MONEY

MANUFACTURED ONLY BY

M. C. RYAN COMPANY PHOENIX, N. Y.

damages to the strawberry men who suffered through its dereliction, and at last reports had something like $50,000 still to pay, suggests how important that industry has grown to be in that section. The same report from which this information is quoted also says that the Armours have received the exclusive contract for transporting the strawberry crop of 1906 from that territory, upon promise to furnish at least 1,800 refrigerator cars without delay during the strawberry season. Imagine what it must involve to handle so many berries in one brief season.

Words About the Strawberry

THE kind words which have come to us in a flood since the initial issue of The Strawberry began reaching our friends are more gratifying than we can find words to express. That the field and the mission of the magazine is so generally recognized, and that the magazine itself is so appreciated by those best fitted to judge is matter of great pleasure to its publishers. We are taking the liberty to publish herewith extracts from letters received which are only typical of hundreds to the same effect. It shall be the highest wish of The Strawberry to measure up to the good opinions and cordial good wishes of those who have so kindly announced themselves as its friends and supporters. Such cooperation is an element in success of incalculable value. Here are some of the kind words we have received:

Edwin C. Powell, Editor Farm and Home

Springfield, Mass., January 9, 1906.—Copy of The Strawberry duly received and I have read it with much interest. It is a very interesting and valuable publication, and I trust will meet with success, as there is certainly a good field for it.

Stark Bro's. Nurseries & Orchards Co.

Louisiana, Mo., January 12, 1906.—The first issue of The Strawberry duly received and the writer takes the liberty of expressing his admiration for the publication. It is certainly beautifully gotten up—good paper, good printing, good advertisements, and best of all, first-class reading matter for strawberry growers. We congratulate you most heartily.

H. A. Bereman, Agricultural Editor The Farmers Voice

Chicago, January 6, 1906.—I have just seen The Strawberry, and while it was fore-ordained, I want to hand you herewith my congratulations on its beauty, its keeping qualities and the general flavor. Long may it thrive!

Kewanee Water Supply Co.

Kewanee, Ill., January 6, 1906.—We wish to congratulate you on the first issue of The Strawberry. We refer especially to the arrangement of reading matter, the style of type, the quality of paper, and the general get-up of the magazine. We wish you a successful New Year.

M. J. Wragg Nursery Company

Des Moines, Iowa, January 13, 1906.—I am just in receipt of the first issue of The Strawberry which comes to my desk today. It certainly is a beautifully illustrated magazine, and is chuck full of information pertaining to the growing and handling of the strawberry. It is worth many times what it costs to the practical strawberry grower, and we see no reason why it should not become popular at once among that craft.

T. T. Bacheller, Editor Agricultural Experiments

Minneapolis, Minn., January 11, 1906.—Vol. 1—No. 1, The Strawberry at hand. It is O K, and will be noticed in our next issue.

E. F. Corbin, Adv. Mgr. Farmers Tribune

Sioux City, Ia., January 9, 1906.—Volume one, number one of The Strawberry has just reached our desk. We congratulate you on the splendid appearance of this initial number and wish you every success in the venture.

Leslie Jeffries, Red Hill Farm

Bridgeport, Pa., Jan. 5, 1906.—I enclose one dollar ($1.00) for which please send me your magazine for one year. I think this is a great idea and is just the thing I have been looking for for some time. In all my experience of agricultural and farm papers I find that they have little to say on this subject.

W. J. Stewart

Moline, Ill., January 11, 1906.—The first number of The Strawberry at hand. I am well pleased with it and anticipate much pleasure and profit from reading and studying it during the coming year. One thing I like about it is that it is practical. Theories are all right, but are not of much benefit to the race until worked out in practice.

A. J. Anderson, Valley View Farm

Parker, S. D., Jan. 11, 1906.—I am in receipt of No. 1, Vol. 1, of The Strawberry. I thank you for sending it to me as it is a publication I have been looking for. I enclose $1.00 for one year's subscription. I am interested in growing strawberries in a small way; I picked 4,000 quarts from one and one half acres last year.

J. Wragg & Sons Company

Waukee, Iowa, January 13, 1906.—We have received your paper and we must say that we are well pleased with it and bespeak for you a great future in the line you have taken up; and if this first number is an indication of what you will give your readers, they will surely be well pleased.

Recruiting the Farms

FOR years the country boys have been deserting the farms for the village, the town boys have been winning success in the cities, and the city boys have been making their mark in the metropolis. The process, however, threatens to leave the farm without its workmen. As the urban population which must be fed from the farms increases, the tillers of the soil become fewer in number and poorer in quality. Those who remain to care for the crops have one fault which the city dweller is quick to notice. The worker somehow does not put the spirit into his tasks that the eight-hour-day man in town exhibits. The city boy grows up in an atmosphere of hustle. With his ability to make every moment count, the city-bred man may get out of a farm immeasurably more than the average farm resident. Agricultural schools and a business instinct and training are not bad substitutes for farm breeding; and it will not be surprising if the next few years witness an exodus of city-bred workmen, filled with spirit and speed, to

FRUITMEN
SHOULD KEEP BEES

There will be a nice income to you from a few hives of bees, and your

Plants will Bear Better

Fruit bearing depends upon the fertilization of the flowers. Why not make fertilization certain and at the same time add to your income by keeping bees?

Bees are not expensive and can be made extremely profitable. Do you want to know how? Our printed matter will start you right. Many interesting booklets free.

"The A B C of Bee Culture"

the best text-book for bee keepers ever written, with over 500 large large pages, beautifully illustrated, for only $1.00. Send for free booklet.

The A. I. Root Co.,
MEDINA, - - - OHIO

DEWBERRIES

After Strawberries, the best paying crop the small fruit grower can raise

Write about Plants and Culture to

T. H. Smallwood, Box R 1 5 Fort Scott, Kas.

Berry Baskets — Quarts, $3 per 1,000
Hallock's Cups, Hallock's Boxes, Crates, Etc., in stock.
Send for List. W. D. Soper, Jackson, Mich.

THIN MODEL WATCH

Solid Gold double hunting filled case fitted with full EVINGTON JEWELED MOVEMENT. Both guaranteed for twenty years . . . $6.35

The two important things in buying, the price and value of the watch, are left entirely with you, for we send the watch with privilege of careful examination before you pay any money.

This Solid Gold filled, hand engraved, thin model, dust and dirt-proof, double hunting case with antique bow and crown is guaranteed by us for 20 years

The Evington movement is stem wind and stem set, nickel finished, finely balanced and perfectly adjusted, and is fitted with rubies set in raised golden settings. It has dust band, patent regulator, enameled dial, fancy hour, minute and second hands, and each movement is accurately regulated before being shipped and is guaranteed by us for 20 years.

Give name, post office and nearest express office and size of watch wanted (Ladies' or Men's) and watch will be shipped with privilege of advance examination. Compare it with the above description and if you like it, pay express agent $6.35 and express charges. With each watch we send our binding written guarantee for 20 years. Reference: First National Bank of Chicago. Capital and surplus $13,000,000.

BACH & CO., 8th Floor Wolff Bldg., Chicago.

When Writing Mention The Strawberry

the districts which produce the original matter for all the breakfast foods.—Booklover's Magazine.

This is no dream of future possibilities; it is already realized in practical life, as strawberry growers all over the country can testify. Some of the most successful growers in the country are city-bred men and women, who, applying to their new vocation the wit and wisdom of city experience, are building up independent and productive homes—some in the city suburbs, some far removed from the city's jarring noise and strife.

Some Cultural Suggestions

THE successful strawberry grower is the man who knows his plants and comprehends their needs. In addition to any general rules governing the methods employed in setting, fertilizing, cultivating, mulching, etc., you must consider the infinite variations of soil and climatic conditions, and the variations also of the plants themselves. As the stockman knows his herd and the individual peculiarities of its different members—somewhat in the same way must the horticulturist study his fields and note the characteristics of foliage and fruitage of his various plants, and feed them and care for them according to their nature and their needs.

Suppose, for instance, that you observe a heavy growth of foliage; so heavy that you are confident the fruiting power of the plants will be lessened in consequence of their expenditure of energy in making foliage. Now if you have been cultivating a great deal, you may be sure that that is one of the causes of your extra-luxuriant foliage, and the thing to do is to stop cultivating early, doing so much only as is required to keep the weeds well in hand or break up the surface crust.

Exactly the reverse methods would be followed if you found the foliage development deficient—for you must not forget that the life and vigor of the plant and the output of berries depend very largely upon an abundant foliage—a properly balanced foliage. It is in the observance of these varying conditions that success lies—it is the man who notes the minute details of his business that is sure to make the largest success, and in no other occupation is this more true than in our own. Then cultivation must always be done with an eye ever watchful of the fertility content of the soil. What does cultivation do in this regard? It makes plant food available. You know the old saying that "You can't eat your cake and have it, too." So is it impossible to feed the fertility to the plants and still keep it in the soil; in other words, cultivation of the soil exhausts plant fertility rapidly in the ratio in which it is fed to the plants. Therefore, be wise in practicing cultivation, and do not make more plant food available than the plants may properly consume, while at the same time you must not fail to feed them an ample supply to build up strong foliage and fruiting power.

Cultivation must be differentiated, also, to meet the varying conditions of moisture. A wet season aids plant growth, if it be not too wet. A wet season also is productive ot heavy weed growth, and, when the soil is heavy, will have a caked surface if cultivation does not follow each rain. Consequently, a wet season will require that the grower be in the field with the cultivator before the weeds can start or the surface bake, and he will thus aid to retain the moisture in the soil by creating a dust mulch that effectually prevents evaporation by capillary attraction. However, be careful never to cultivate when the ground is wet.

The study of these points and others having to do with the growing of strawberries will be a valuable occupation for the mind between now and time for active work in the field. They all bear directly upon your business, and if thoroughly understood and practiced, will have important bearing upon your success.

The Lou Dillon Tandem Garden Cultivator

Suits the practical gardener because it cultivates either between or astride the rows, and he goes along at an easy, continuous walk. One simple movement without the use of wrench or tool of any kind makes it possible to always furrow the soil at just the desired depth. You must not put this cultivator on a par with the common hit and miss garden cultivator. It works so easily and accurately that it is the greatest help to amateur gardeners, women, truck farmers, and, in fact, anyone who wants to save time and do good accurate work.

The Lou Dillon cultivator works as easily as a lawn mower. It is in fact, the only garden cultivator that is practical for a woman or child, as it is the only one made that they can push.

We will take the cultivator back and give back your money if it don't do your work better and in less time than any garden cultivator you ever used.

Write for free descriptive catalogue and prices.

Schaible Manufacturing Co.,
Albion, Michigan.

TWELVE EVERGREENS FREE

We grow our HARDY "BLIZZARD BELT" EVERGREENS by the million. They are healthy, well rooted, vigorous. To prove it, we offer 12 choice spruces and pines 2 years old, entirely free to property owners reading this advertisement. Mailing expense 5c, which send or not as you please. A postal will bring them. Our CATALOGUE, containing 42 colored plates of our HARDY "BLIZZARD BELT" Fruits, Evergreens, Ornamentals, etc., with a mine of valuable information for fruit growers, free for the asking. Write to-day. This offer may be withdrawn later on.

THE GARDNER NURSERY COMPANY, BOX 802, OSAGE, IOWA

32 YEARS SELLING DIRECT

We are the largest manufacturers of vehicles and harness in the world selling to consumers exclusively.

We Have No Agents

but ship anywhere for examination and approval, guaranteeing safe delivery. You are out nothing if not satisfied as to style, quality and price. We make 200 styles of vehicles and 65 styles of harness. Our large Catalogue is FREE. Send for it.

No. 628. Leather Top Buggy with Leather Covered Bows and ¾ inch rubber tires. Price complete $68. As good as sells for $25 more.

No. 327. Canopy Top Surrey. Price complete $73. As good as sells for $25 more.

Elkhart Carriage & Harness Mfg. Co., Elkhart, Indiana.

Let us Act as Your Factory

THAT'S OUR BUSINESS

We make nothing of our own for sale. Manufacture exclusively for others anything in metal. We refer you to the publishers of this magazine.

Kalamazoo Novelty Co., 200-216 Rose St., KALAMAZOO, MICH.

LITTLE ADS. FOR OUR FOLKS

AN ADVERTISING EXCHANGE FOR ALL Strawberry Growers in which they may make known their wants. If you have anything to buy, sell or exchange, need a job or are looking for help in your strawberry work, here is the place to make it known. Count name, post office, initials, words or numbers each as one word, and remit a sum equal to 2 cents for each word for each insertion. No order will be accepted for less than 25 cents and cash must accompany each order. Advertisements must contain address, otherwise we cannot forward replies from this office. Remit by post office or express money orders.

FOR SALE—"Pan American" and "Autumn" Strawberry Plants that will bear from August until November. Send for circular. Samuel Cooper, Delevan, N. Y.

PRINTING FOR STRAWBERRY GROWERS—Letter heads, envelopes, cards, labels. First-class work at low prices. The Kellogg Publishing Co., Three Rivers, Michigan.

TRY the Kellogg malleable-iron, one-piece Dibble, if you would turn plant-setting into a delight. Pays for itself in one half-day's work. Write the Kellogg Co. for their little folder on "How We Keep Down the Weeds." 'Twill help you in your work. R. M. Kellogg Co., Box 775, Three Rivers, Michigan.

Where the Strawberry Comes From

MOST popular of all the fruits, the strawberry has a history of large interes., although its earlier records are veiled in uncertainty. Botanically a member of the great rose family, it is of the order Fragaria, a Latin word from which we derive the English "fragrant," or a plant with sweet odors. The Fragaria family is divided into five species, namely, Fragaria vesca, or "Alpine", F. Elatior, or "Hautbois"; F. Indica, or "Indian"; F. Chiloensis, or "Chilian"; F. Virginiana, or "Virginian."

The Hautbois and Alpine varieties are little known in this country except among amateurs. They are never grown for commercial purposes here. In Europe, however, they are prized highly as dessert fruits. They are found to some extent in the more northern latitudes of North America, and in some of the states west of the Rocky Mountains. The seeds are on the surface of the fruit, and never depressed or sunken within a cavity.

The Virginian strawberry is the most common species found in our country, and prevails quite extensively in all sections east of the Rocky Mountains. It is the most fragrant strawberry known, and is celebrated for its highly aromatic perfume, while the fruit is rich, sweet, and firm. The seeds in this species are deeply imbedded in a cavity or pit.

The South American species is widely distributed throughout the west coast of America, from as far north as Alaska, to Chile and other countries of South America. The seeds are imbedded, but not so deeply as those of the Virginian, and the fruit is larger and sweeter than that of any other species. Many varieties of it have been grown in this country, but in recent years, have become so mixed and improved by cultivation and by crossing with the F. Virginiana that it would now be a difficult matter to find either species in its typical form.

F. Indica is a native of northern India. It has a yellow bloom and does very well in window baskets, but the fruit is dry and tasteless.

Historians do not agree upon many points concerning the strawberry, but from an interesting paper recently read by Prof. George A. Cole of the Arkansas Experiment Station we are indebted for the facts which appear below. Prof. Cole calls attention to the fact that the improved varieties of today are the descendants of Virginiana and Chiloensis forbears, the latter being the favorite stock of the European gardeners. The varieties evoluted from this species are not so hardy as from the Virginiana. The mild climate of France and England and the intensive culture practiced by the gardeners of those countries, causes the Chiloensis and its varieties to respond bountifully. It is asserted by a well-known writer on horticulture that ninety-nine-hundredths of all the strawberries of commerce are from the two species, the Virginiana and the Chiloensis.

It is said that the law of race extends to strawberry plants. As in the most refined and cultivated peoples there is a strain of the old native stock, which ever remains a source of weakness or strength, so the new varieties indicate in the ordinary rough and tumble of field culture, as practiced in this locality, whether they have derived their life from the hardy F. Virginiana or the tender and fastidious F. Chiloensis. A variety from the former adapts itself to conditions extremely varied; while a variety from the latter needs all the care of an expert gardener to make it remunerative.

Taking Their Winter Sleep

By Ralph Schepers

NEATH a blanket of mulch and a snowy white spread,
The plants are asleep in the strawberry bed;
The mother plants dormant, the children a-doze
All safe and secure in the well matted rows.

While the plants are thus sleeping, the owners may dream,
Of coming big berries, of sugar and cream:
Of reward for all toil in the fruit they will yield;
For no labor is lost in the strawberry field.

Holland, Mich.

The capacity of the Virginiana strawberry for improvement is shown by the production of the older but excellent varieties, such as Hovey's Seedling, Wilson's Seedling, Charles Downing and Sharpless. In our own time Michel's Early, the Crescent and Lady Thompson exemplify its usefulness as a stock from which to evolve commercial varieties.

Prof. Cole says that historically the fragaria vesca or "Alpine" strawberry is the first on record. It is the strawberry of the ancients. I am not sure but that Adam's fall was caused by this strawberry rather than an apple. It is the "Alpine" that Virgil knew when he wrote the following lines:

"Ye boys that gather flowers and strawberries,
Lo hid within the grass an adder lies."

This species grows wild throughout northern and central Europe. In America it is found in all the mountain regions from the northern Atlantic to the Pacific.

The "wood strawberry" of England is a variety of the "Alpine," the only difference being in the shape of the fruit. The "wood" is round, while the "Alpine" is conical.

One of the earliest pastimes of the English people was to go "a-strawberrying." In the "Fairie Queen" we find these lines·

"One day as they all three altogether went
To the green wood to gather strawberries,
There chanst to them a dangerous accident."

Shakespeare alludes to the strawberry in the play of "Henry V." An earlier bishop of Ely says: "The strawberry grows underneath the nettle, and wholesome berries thrive and ripen best neighbored by fruit of baser quality."

The Alpine and the wood strawberries tend to reproduce themselves with such unvarying exactness that they remain about what they were centuries ago. Cultivation does not change them.

In connection with the white and red wood strawberries and Alpine strawberries, the Elatior or "Hautbois" is mentioned in the year 1623. This latter species is native of Germany and does not differ materially from the "Alpine" in its tenacity to hold on to its "old self." It, like the others mentioned, is incapable of being improved by the best cultivation, nor do the seedlings from it vary from the parent. Cross-fertilization would doubtless effect a change and thereby give us a hardy if not a prolific variety.

The horticulturist is at the end of his row to improve a species when it fails to vary from the original. It is his province to assist nature in causing the "fittest to survive."

From reliable records we find that the English and French gardeners cultivated the strawberry as far back as the fifteenth century. As there were plenty of wild strawberries of good size, and of the very finest flavor, along the Atlantic slope, it was not necessary for the early settlers to cultivate them. But as towns and cities grew up these furnished a market for more than nature unassisted could supply. Hence the farseeing gardener transplanted the wild Virginiana into his grounds. As close cultivation made larger berries, and as larger berries commanded higher prices, it was a short step of reason to demand the best and biggest berry. The business of raising strawberries for the market first started with the gardeners around New York, Washington, Norfolk, Richmond and other coast cities and towns of the eastern states.

The cities of New York and Washington demanded berries before they ripened in their own gardens, hence the business of raising the berry farther south became more remunerative about Norfolk and Portsmouth than farther north. It was

at these places that the garden-patch grew into one, two and three acre patches, and finally into hundred-acre fields of strawberries. Here the berry raiser worked out the modern methods used in field culture and shipping.

The food office of the strawberry is to supply its beneficial vegetable acid to the system, diluted and flavored as it is by the water and sugar and the delicate fruit aroma, the combination of which, in the case of the strawberry, has attained so delightful a degree of perfection, and eaten from the plant, or served with sugar and cream, is an Arcadian dainty, leaving nothing to be wished for, making it probably the most wholesome of all fruits.

Potash in Strawberry Production

ONE of the errors found in every section of the country is that potash is a plant food which, if fed alone to strawberries, will be all-sufficient. Writing on that subject George Wright says: It is a very important thing to remember that however efficient and valuable potash may be as a plant food, it cannot fulfill the conditions of a complete fertilizer—it is not a complete plant food any more than oats would be a complete food for the horse. It is but an element of food, and its real value will be largely measured by the content of phosphoric acid and the nitrogen in the soil, either naturally or artificially applied, in order to meet all the needs of the plant.

One of the crops which usually responds liberally to the use of potash, in connection with the other elements, is the strawberry. This is a crop which can be successfully grown on almost any soil if proper attention is given to the matter of proper fertilization. Correct methods in this direction are even more important than that of soil selection. It can be truly said that no crop will continue to produce a profitable yield of berries unless they be judiciously and liberally fertilized. Besides improving the yield of fruit, such fertilization also materially improves the quality of the berry, both as to flavor and firmness, the latter being a matter of considerable commercial importance.

A satisfactory strawberry fertilizer should contain about the following proportion of ingredients:

Nitrogen	3 per cent
Potash	10 per cent
Phosphoric Acid	7 per cent

If the berries are to be produced upon soils quite sandy, it may even be better to increase the potash to 12 per cent. Such a mixture should be applied at the rate of about 500 pounds per acre, and thoroughly worked into the soil. If the location is one in which heavy winter and spring rains may be expected, it is well to apply only a portion—say 150 pounds—of the nitrate of soda to the berries at first, the balance to be applied somewhat later. The fertilizer should not be sown directly on the plants while in an active growing state, as the leaves will be injured by such treatment, but the material may be distributed around the plants in such a way as not to come into direct contact with the plants themselves.

The amount of ingredients named may seem large, but the strawberry, small as the plant is, is a strong feeder, as will be seen from the following table showing the ingredients removed from an acre by an average crop of strawberries:

	In 1 acre strawber's	In 7 tons manure
Nitrogen	74 lbs.	77 lbs.
Phos. Acid	28 lbs.	57 lbs.
Potash	125 lbs.	74 lbs.

From the above it will be seen that it would require about twelve tons of barnyard manure to return to the soil the ingredients of a single crop of strawberries, and even then there would be a considerable excess of nitrogen, which would have the tendency to produce a very heavy growth of foliage at the expense of fruit. Such an unbalanced material as stable manure alone cannot be recommended for this crop.

The stable manure in moderate amounts, balanced up by the use of potash, would be fairly good practice.

If the nitrogen be obtained from the stable manure, then there will be sufficient in the latter too, but the potash will be deficient, and this can be supplied either from the sulphate or muriate of potash.

ONE young Iowa farmer has at last got his eyes open to a very important thing. He writes Farm, Stock and Home, of Minneapolis, about it, saying: "I have been in the habit of scanning my farm paper much as I do my daily, picking out the funny or light reading, and those things that seemed unusual or sensational in growth or yield of farm pro-

Strawberries

IF YOU believe the plants you plant cut any figure in the results; if you think think the best is none too good for you, and cheapest in the end, and if you want to be sure of getting the variety you buy, in a condition to make the most for you, I ask you to investigate

THE PLANTS I GROW

I don't claim to sell you plants cheaper than anybody else. I am not competing with the man whose stock has nothing but cheapness to recommend it, and it is not to your interest to buy that kind. My claim is that I am producing the best, strongest, most vigorous and most prolific plants that can be grown in a favored strawberry climate and that I am selling them at a reasonable price.

ONE HUNDRED VARIETIES

About every kind that has ever proved its right to be grown in any locality. Of course I especially recommend the well known varieties that are standard everywhere, among them being **Virginia, Chesapeake, Cardinal, Commonwealth, North Shore, Oaks Early, New York, Glen Mary, Stephen's Champion, etc.** But select your own varieties and I will send plants to please you.

MY 60-PAGE CATALOGUE

Is free and gives all particulars. Also lists leading varieties in **Cabbage, Cantaloupe, Tomatoes, Field Corn, etc.** Tested novelties and Standard Garden, Field and Agricultural Implements. Don't fail to write for a copy.

W. F. ALLEN, Dept. 58 SALISBURY, Md.

ducts, or things that pleased without being instructive. But I see now that I have gone wrong. I am a week studying a number of the paper where I used to finish it in an hour. I read it now in installments; some articles two or three times over, and think about what I read, and I am surprised at what I get compared with what I did before, and I am already beginning to think that the paper is better worth $10 a year than 50 cents. I have learned how to read this paper, and the paper taught me to do it, and for that one thing it has done a good deal for me."

Notes on Everbearing Plants

By Samuel Cooper

I WAS interested in the report of Mr. Riehl in The Strawberry about the Pan-American strawberry, as it is the first I ever succeeded in developing the fall-bearing habit in. I do not like the term everbearing, as it conveys the idea that they can be fruited all summer successfully. which is not exactly true. They will, however, bear some the whole season, but the berries will be small after the spring crop is taken off, as you know the roots become woody and die. It is too much of a strain on the plants in their weakened condition.

The best way is to set as early as possible in the spring, dividing the old plants so as to have some roots on each plant, setting them about one foot apart in the row, rows thirty inches apart. Most of these old plants will send out new roots from the crown above the old roots which will not die in August (that is the new roots) as is the case with strawberries raised in the usual way. Keep all fruit stems picked off up to July 15 to 20, also all runners if any appear, as no strawberry plant will do its best producing fruit and runners at the same time.

What some people consider a defect in the Pan-American in not producing runners freely, I regard as a great advantage, as I want them to throw all their energies to making fruit, and I prefer the old plants divided in the spring to new layer plants on account of the root system mentioned above. Handled this way they will begin to bear about August 15 or 20 and will continue to blossom and fruit until frozen hard. I find them more profitable than spring varieties and a great treat at that time of the year.

Delevan, N. Y.

Mr. Cooper's plan of dividing an old plant doubtless is all right in the case of the Pan-American, but would not be a good one to follow with many other varieties. The Pan-American makes a large number of crowns, and they are so arranged that it is possible to divide the plants. The same is true of the Parker Earle. Our correspondent makes mention of the new roots forming just above the old ones. This is true of any variety, if the crowns are covered lightly with fine soil. In preparing an old bed for its second crop, always rake over the crown so as to encourage the new root system.

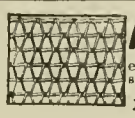
We agree with our correspondent that the title "double-cropper" is more nearly correct than that of ever-bearing.

One principal objection to the double-cropper varieties is their tendency to give so large a share of their energies to the production of fruit buds that the foliage and runners generally are weakened. If we can get a variety so full of vitality that it will build up two sets of buds without drawing so heavily upon its vegetative parts, the double-cropper varieties will fill an important place in the strawberry world.—F. E. B.

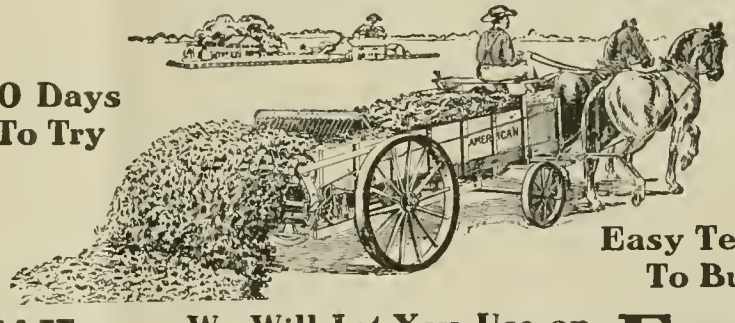
Proper Pollenation Points

HERE comes an inquiry from Illinois too late to get into the Correspondence School. Mrs. J. W. D., of Sullivan, Ill., writes: "Will you please tell me through the February Strawberry what other three plants I should set with the Warfield, Senator Dunlap and Gandy for best results?"

Answering this inquiry we would say that in setting Warfields one should first set one row of extra-early bisexual, like Climax, August Luther or Excelsior, then three rows of Warfield; these should be followed by some bisexual variety of mid-season, like Senator Dunlap, Splendid or Parsons' Beauty. The Gandy may be set between a medium-late and an extra-late bisexual, both of which should be strong in pollen. For instance,



FENCE STRONGEST MADE. Bull-strong chicken-tight. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalog free
COILED SPRING FENCE CO.,
Box 162. Winchester, Indiana.



30 Days To Try

Easy Terms To Buy

Why We Will Let You Use an American Manure Spreader Free

It's just like this.

You need an American Manure Spreader.

It will double the value of every bit of manure you put on your land.

It will pulverize and break it up, so it will mix with the soil easily.

Aud it will distribute eveuly, so every square foot of land will get its share.

The other reasons you will find out yourself just as soon as you try the Spreader.

And we will let you try it for 30 days at our expense.

We send you the Spreader and prepay the freight. You use it a mouth. Before the 30 days are up, you will wonder how you ever got on without it.

The Spreader will practically earn its own cost before you send us a cent.

We give you a liberal allowance of time in which to pay for it.

And if you shouldn't find it exactly as represented, you send it back at our expense, and the trial costs you not a shilling.

We can afford to make you this offer because we know that our American Spreaders are well made, on correct principles, and that they will stand the Test.

They represent twenty-five years study and experience. Their good points are the result of our knowledge of field needs. We have developed them along practical lines.

American Spreaders are carefully and sensibly constructed, and they show it.

We own and operate the largest Manure Spreader plant in the World. We turn out more machines every year than any other manufacturer. Our ample capital enables us to sell our Spreaders on long time.

We sell direct to you because we want to keep in close touch with users of our Spreaders.

This way we get a chance to tell you how to use them to best advantage and why our way will give best results

We will tell you all about Manure Spreaders, and how to spread manure, so that you will be able to select a size best suited to your needs—and you bave our 5 sizes and 9 styles to select from.

When you buy from us you get just the kind you should have to do your work best.

We don't belong to any trust.

We are an independent concern.

Write today for our **FREE** catalog. Tell us how much land you own, bow many horses you keep and how many head of cattle, sheep and hogs you have, and we will give you the Government statistics as to the annual value of your manure crop.

We will also send you a little booklet telling all about "Our New Selling Plan."

It will interest you and save you money. Ask at once. You will be glad if you do.

WHAT MR. HILL SAYS:

NANTICOKE, PA., Dec. 12, 1905

AMERICAN HARROW CO., Detroit, Mich.

Dear Sirs:—Enclosed you will find notes, duly signed, for spreader.

I am very pleased with the construction of the American Spreader, all its parts seem to be made for long service. The work it performs in three minutes is better than I have been able to do with the fork in 25 to 30 minutes and I anticipate its results to be far ahead of anything I have had in the past, especially on the hay-fields, as it fines the manure into such small particles as not to smother the smallest tuft of grass. Your courteous treatment and prompt shipment of machine leaves nothing to be desired and I have no hesitation in saying I am a well satisfied customer.

WILLIAM. J. HILL, Nanticoke, Pa.

American Harrow Co., 4528 Hastings St., Detroit, Mich.

one row of Pride of Michigan or Bismarck, then three of Gandy, followed by Aroma.

In considering Gandy it must be remembered that while it is a bisexual, its first bloom is almost without pollen, the principal part of the bloom containing only a few anthers, and these do not supply a large amount of strong pollen. The Senator Dunlap is an extra-strong pollenizer, and will not require any other variety for the purpose of pollenation.

We are glad to have you ask this question, as proper mating of varieties can hardly be discussed too often, and it is one of the very important features of the work of successful strawberry production.

The Strawberry as an Advertising Medium

FOR a magazine just launched upon its career, the amount of advertising carried by The Strawberry in its initial issue has received favorable comment from many sources. But quantity is not its only attraction. The quality of the advertising in its pages is so high as to call for especial notice, and here is an extract from one of the letters we have received on the subject:

PETOSKEY, Mich., Jan. 16, '06.

We are just in receipt of The Strawberry for January, and are simply delighted with its appearance . . . We wish to commend the position you take in regard to advertisements. Of all the journals or publications we have seen, yours stands at the head in respect to the class of its advertisements. We took note of this before we read your announcement setting forth your attitude in this matter. May you ever maintain this high standard! Both Mrs. E. and myself appreciate this cleanliness of your advertising department more fully than words can express. God bless The Strawberry!

M. N. EDGERTON.

Nor is it only the reader who is pleased with our advertising. From one of our heaviest advertisers we are in receipt of the following letter—from one whose business is right here in Three Rivers and who saw for himself that all our claims as to circulation were more than fulfilled:

The National Fur & Tanning Co.

THREE RIVERS, Mich., Jan. 16, '06.

We are much gratified with the results that are flowing from our advertisement in the January Strawberry. Although it is just two weeks since you began mailing out the issue, we are receiving many letters each day from readers of The Strawberry, and they come from all over the country. You may run our full page ad. in the February number, as we are convinced that your circulation is 100 per cent good. Please accept our thanks also for your courtesy in permitting us to verify your circulation claims by actually visiting your mechanical department and witnessing the huge edition in process of making. We cheerfully endorse your claims to 30,000 circulation, as we know the actual number of copies printed was in excess of that number.

NATIONAL FUR & TANNING CO.

And from another advertiser comes a letter expressing the same sort of gratification over results secured through advertising in The Strawberry:

The National Tool Co.

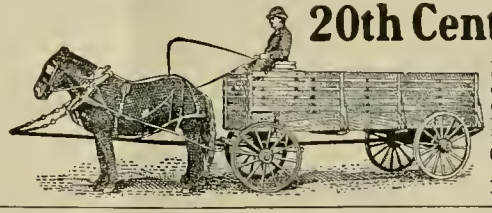
THREE RIVERS, Mich., Jan. 19, '06.

It affords us much pleasure—and unsolicited by you—to say that of all the publications we have used during the past year, The Strawberry has brought us more inquiries from our little seventeen line ad in your first issue of thirty-two thousand (32,000), than we have received fromold publications with 250,000 circulation. And we are especially struck by the high character of the people from whom this business received through The Strawberry comes. We want to congratulate you on the beauty of your publication, and believe you are covering a field that will appreciate your efforts, and your future to us seems unlimited. Please continue our ad. Wishing you great prosperity, we beg to remain,

Very respectfully,

THE NATIONAL TOOL CO.

WHEN sending in your subscriptions to The Strawberry be sure that you send full address correctly and plainly written. One of our Texas friends, in his haste to get his name upon The Strawberry lists, put a dollar bill inside a perfectly plain envelope, and sent it along without signing. All we had to indicate that it came from any particular place was the postoffice; who it came from was shrouded in impenetrable mystery. Don't let this occur in your case. It is bad for the sender, but especially bad for us; for we surely shall be blamed for it if you fail to get the magazine. An Indiana friend sends us his name and address all right, but fails to enclose the dollar. This also is bad all round. Be careful; see that the name, the address and the dollar, all are in the envelope before you seal it. Then if Uncle Sam's postoffice department makes due delivery, The Strawberry will be responsible for your failure to get the magazine. And don't forget to tell your friends all about these important points.



20th Century Combination

A wagon box, stock rack and hay ladders combined. Can haul loose hay or straw, all kinds of live stock ear corn, threshed wheat or oats, apples, potatoes, etc. Good for every use on the farm without removal of parts. **All Changes Made Instantly.** Catalog Free

MODEL M'F'G. CO.,
Box 52 , Muncie, Ind

IS HARD, ROUND AND SWEET---

Lilly's Glory Cabbage

WE perfected this variety on our own experimental grounds on Puget Sound, and it has proved a wonderful success, pronounced without a doubt the best cabbage in this region, famous as the best cabbage country on this continent. We supply seedsmen all over the U. S. with cabbage seeds, and this is the best variety there is grown. It is as hard as the Danish Ball Head, and has an even more perfect roundness. It matures in mid-season, earlier than any other hard, round cabbage. In quality it proves most excellent, tender and crisp. This cabbage is destined to be the most popular variety of any. For market purposes it is unexcelled. It is a ready seller and it is so good that a profitable trade can be built up for it. We advise all our customers to try this cabbage.

Sold only in sealed packages.

Price: packet, 10c; ounce, 35c; pound, $3.50

Write for new 1906 catalogue of Lilly's Puget Sound Seeds. Use coupon.

LILLY'S BEST LILLY'S BEST

CUT OUT and mail to CHAS. H. LILLY CO.
SEATTLE, WASH.

Enclosed is $.....in (money order, draft, 2c stamps) for which please send me .....packet, ...ounces,.....lbs. Lilly Glory Cabbage Seed Charges prepaid.

Name.....

Address.....

AF2

A Woman's Success With Strawberries

By Miss S. M. Pollard

SOME of my work as a strawberry grower last season was wise, some otherwise, although in most things I followed your directions; but for days and weeks, when they were grown, I repented on hands and knees that I had not followed them in all. The ground was well manured in the fall and plowed about six inches deep the next spring. Then it was harrowed thoroughly and smoothed with a plank float. Next I marked out the rows, just twenty inches each way, and set out the plants. I soon started my Planet Jr. cultivator which I used every few days during the summer, thus keeping out all the weeds. In the fall, when the ground was frozen sufficiently hard to support a wagon, I covered the plants about six inches deep with straw and this was not removed until the middle of the following May, the spring being so late it could not safely have been sooner removed.

I started the cultivator again and kept that going as before till the plants literally shut me out from between the rows. Then I realized for the first time what a mistake I had made in not giving them more room. I never had seen tame strawberries growing and, as a neighbor, a poor tumble-down fellow, always says, "If you would succeed you must put in your judgment," I found I had not put in quite enough judgment, and when they began to bud and blossom I saw that I was "up against" a serious proposition.

They were a sight to behold, buds and blossoms everywhere, all through and between the rows, so that one could not step without crushing them. Friends called to see and give advice who never had raised a berry, but were chock full of knowledge about caring for the plants. They told me that I must "pinch off" one-half or two-thirds of the blossoms or the plants would die; that they would never amount to anything, for no plant could ever produce such an amount and live.

While I could only agree with them, I did not have the heart to remove one of those pretty flowers, and inasmuch as I had got them for the purpose of experimenting, they must work out their own salvation—live or die. But they did not die; they kept right on growing; and when ripe, many of them measured five and a half to six inches in circumference.

Such a time as we had to pick them! We had to move the berries aside to get a place to put our feet, and then stand astride of the rows, our skirts brushing over the blossoms. This I saw would not do, so I rose to the occasion and donned a pair of bib overalls to the merriment of my city company, as I came from my room with hand aloft crying "venia necessitati datur;" but I found myself dressed much better suited for the work.

We sold from a plot two rods wide by four rods long a little more than forty dollars' worth—besides what we put up for home consumption, and quite a lot which we gave to our less fortunate friends. And the end was not yet. But my companion having just finished a nine months' term of school, wanted a rest

MISS S. M. POLLARD

and the time to attend the fair at Portland, Ore., before beginning her next term, so I called a halt and mowed the vines, more than satisfied with my first attempt at raising strawberries.

In this one year I have learned that strawberry growing is a woman's work, and anyone that can successfully raise tomatoes or cabbage can do as well with strawberries. She may in this way secure a goodly supply of pin money and escape the humiliation of asking "hubby" for every cent. It is a business that never will be overdone; the field is wide, the demand growing. It is a business that must be learned and attended to like any other, but with a little experience, combined with natural qualifications, such as energy, common sense and perseverance, one is sure to succeed.

The cost of plants and other expenses for home use is not worth speaking about, and those who wish to make a business of raising for market will find the cost for fertilizers, tools, boxes and crates so small compared to the profits that they will cut no figure.

I sold all my berries by the crate (twenty-four quarts) at ten and twelve and a half cents per quart, when I might have gotten fifteen and eighteen cents just as well, had I wished to sell by the box. I could not begin to supply the demand in a little town of from three to four hundred people. I would no more than get in sight when friends would come to my carriage to see if I had berries and ask if they were for them or when I would bring their crate!

Orders came for my berries from Crookston, a city twenty-five miles away, and other towns where they had heard of my strawberries, long after I had mowed the vines. The majority of the strawberries used in the valley of the Red river come from Hood River, Ore., two thousand or more miles away; and by the time they have jolted over the road in a hot car for three or four days, they stand no show with fresh berries right from the plants at home.

My success has determined me to plant one-half acre in the spring of 1906, and I shall continue to increase the bed so long as I can get help to pick them.

Woodside, Minn.

MAINE strawberry folk do things in a way that makes for success. Advices from Appleton in that state are to the effect that in the season of 1905 Joseph G. Wentworth on three-fourths of an acre raised 5,000 baskets for which he received $500; picking the berries cost him $75. Frank Kenney grew 2,775 baskets on half an acre, and sold his product for $340. Cyrus Perry sold 4,500 baskets, receiving $470 for them, all from three-fourths of an acre. These are only a few instances of what was done in that neighborhood; other growers did equally as well. Which only goes to prove the contention of The Strawberry that there is nothing that offers larger opportunity to the man with small acreage or limited means or both than strawberry production.

REMEMBER that the birds are your friends. When their generous way of helping themselves to your good things makes you impatient and you go to get your gun, stop and recall the service they perform for the world in checking the destructive insect pests in fruit-garden and orchard. According to Prof. H. P. Atwater, quails are of great advantage to the farmer, as are also some other birds. In

the stomach of a quail were counted 101 potato beetles, and in that of another quail 500 chinch bugs. In a yellow-bill cuckoo were found forty-three caterpillars, and in another cuckoo 217 web worms. A robin had eaten 175 caterpillars. The stomach of four chickadees contained 1,028 canker worm eggs. Four others contained 600 eggs and 105 mature insects.

Believes in the Pedigree Idea

PROF. S. W. FLETCHER, chief in horticulture at the Michigan Agricultural College, delivered an address before the Michigan State Horticultural Society on the value of pedigree in nursery stock in which he said a word that ought to be pondered alike by those who grow plants for the use of others and those who buy the plants for fruiting purposes. In part he said:

"A pedigree plant is one whose parentage and ancestry are known. As applied to fruit trees the word is commonly considered to mean a tree which was propagated from a bearing tree having an exceptionally good record for producing large crops of choice fruit. The pedigree idea rests upon the most important principle of plant breeding—that of selection. If the farmer finds that it pays to select the best ears of corn for seed, if the florist finds that it pays to take cuttings from the plants that bloom most abundantly, if the gardener finds that it pays to save seed from his best melons—then there should be something in the pedigree idea when applied to nursery stock. . . . I believe that there is just as much in it as there is when applied to the propagation of garden vegetables, florist plants or field crops; but since the generations are farther apart, the results are slower to appear.

"If all other plants are being improved by selection, and the improvements are handed down to their offspring, why not the fruit growers' plants? Some people argue that the cases are different; that there can be no improvement by selection of plants that are propagated not by seed, but merely by dividing up the old plant. How, then, does the florist get better carnations, chrysanthemums, roses, by merely taking cuttings from his best plants? It is unfortunate that we have so little conclusive evidence on this subject, as regards fruit trees, resulting from careful experiments, and that most of our conclusions must be based only on general observation. I am quite satisfied that several, perhaps many, generations of trees propagated from the nursery row may intervene from the original bearing parent without seriously reducing the fruit-bearing value of the nursery stock—but I am also satisfied that it is usually safer and always better to go to bearing trees for buds, if not every year, then at least every two or three years. The expediency of this practice is an entirely different matter; such trees may cost more, but they ought to be worth more.

"There have been grievous frauds committed in the name of pedigree stock. Much of the stock sent out as such has been no better than ordinary stock; in fact, has been ordinary stock. This has tended to bring the practice and the name into disrepute. But the principle is true, however imperfectly applied. The beginning and the end of the improvement of our fruits is through selection—to which some people have chosen to apply the term 'pedigree.' In my opinion the word is a great misnomer. It can never be used in plant breeding with anything like the same degree of definiteness as it can in animal breeding. 'Selected stock' expresses the idea and describes the practice much better than 'pedigree.' Most every successful nurseryman does more or less selection, although but few of them use the word pedigree to describe it. I should like to see this society put on record in some definite way as favoring and encouraging the greatest of all the principles of plant breeding as applied to the propagation of plants—the selection of the best to be the parents of another generation"

Reports on Variety Tests

By Edwin H. Riehl

LAST month we referred to the work being done by Mr. Riehl on his place at North Alton, Ill., known by horticulturists everywhere as Monach Fruit Farm. This farm has been made an experiment station of the Illinois State Horticultural Society because of Mr. Riehl's preeminent ability and known thoroughness, and reports of his variety tests always are read with interest by fruit growers everywhere.—Editor Strawberry.

MARK HANNA has made a fine showing so far, somewhat resembling Sample and Haverland in its general characteristics. It is rather fair in quality, but its large size and remarkable productiveness places it easily among the most profitable.

Winchell's Beauty—From Indiana, (imperfect, or pistillate). Both plant and fruit as handsome a variety as ever was produced. Large, very productive, early, very good.

Florally—From Georgia; perhaps the best variety that ever came to us from the South. Plant robust, productive, very large, firm, very good.

Crimson Cluster—Is the most promising late variety ever fruited here. May be briefly described as a very much improved Gandy.

Nola (Imp.)—Has every desirable point that a market variety could have.

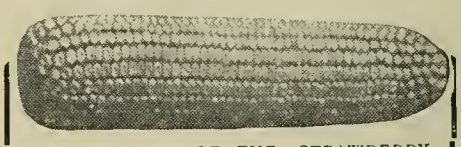
Rip Van Winkle (Imp.)—This variety is a curiosity because of its tremendous production of large perfect fruit, not of best quality.

Mrs. Fisher—Ranks high as a mid-season to late variety. Berries are a little irregular in shape and rather light in color. In every other respect it is fine.

Ben Davis—Very large, productive, firm, best possible quality, promising.

Ernie—Is a good grower, fruit large, uniform shape, dark red, glossy, firm, productive, good quality, very promising.

North Alton, Ill.



WANTED—1000 OF THE STRAWBERRY GROWERS TO TEST

DOERR'S YELLOW DENT CORN

In 1906. Originated by us in 1902. Stands without a successful rival in the corn belt today. We start you with four pounds seed, delivered at your door by U. S. mail for $1.00. **Enough to grow 25 to 40 bushels.** Why not test it? We are in earnest in the matter, and give you the HARVEL BANK as reference as to our reliability.

A. T. DOERR & SON, - - - HARVEL, ILLINOIS

Large circular FREE. Write for it

A Cracker Jack Idea

You have the fresh popcorn and other necessary material, and I have the formula for making the most crisp, delicious and healthful Cracker-Jack on earth. Now, what I propose to do is to send you my formula with complete instructions for making "Potter's Famous Cracker-Jack" if you will send me 25c. Why pay a big price for a little bag of stale cracker-jack, when you can

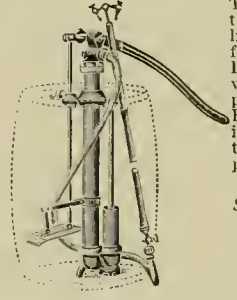
Learn How to Make My Famous Brand

at so small a cost? Send me 25c in silver or two-cent stamps and I will forward my formula and full information to you by return mail. It will tell you how to make your own cracker-jack, and earn big money

Clark Potter, The Cracker-Jack Man, Three Rivers, Mich.

We vouch for Mr. Potter.—THE KELLOGG PUB. CO.

Spray or Surrender



That is the ultimatum that insects and fungi have served on every fruit grower of America. If you do not heed the warning you will not get profits from your orchard. Every man who sprays intelligently at the proper time finds it the most profitable operation on the farm.

Send for illustrated catalog of the Eclipse Spray Pumps and Outfits

MORRILL & MORLEY,
Benton Harbor, Mich.

METAL MOTHERS

Complete fire-proof hatching and brooding plant for $7.50. 2 qts. oil hatches 50 eggs and raises chicks. Catalogue free. CYCLE HATCHER CO., Box 320, Salem, New York.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

RECENTLY a strawberry grower from a neighboring state visited the home of The Strawberry, and when he came to leave after two days of investigation of the methods which are followed here, he said: "This visit has been worth thousands of dollars to me. I have learned where my mistakes have been made and how to correct them, and I am coming again and bring my partner with me. Every commercial strawberry grower should come here and study your work."

All of our members cannot come to see us; many of them are interested to know just what to do and how and when to do it to win the largest results. This department has been created that you may have the advantages of a visitor. No treatise on the strawberry ever written has answered all the questions that come to the man in the strawberry field as an outcome of his daily experiences. Therefore we have created this correspondence school in order that every subscriber to The Strawberry may come here and state his problems and have our aid in solving them. We are sure that all who have read the questions and answers in the January issue of The Strawberry, and all who will read those which follow in the present number, have found and will find in them many points of interest and value; suggestions that will aid them to meet their own difficulties and perplexities.

It is our desire to be able to help everyone engaged in the growing of strawberries, and this department is for you and all others whose names are enrolled upon the lists of The Strawberry. Don't hesitate to ask questions; be assured that it is our pleasure to answer them fully and clearly; and be assured also that when you ask a question for yourself you are asking the same question for many another who is seeking to solve the same problem that has arisen to vex you. Let us have your questions.

M. C., Niota, Ill. Should I set a new bed of strawberry plants every spring?

The only way to carry on a profitable strawberry business is to set a field of plants every spring. Let us suppose a series of several years. In 1905 you set out a field of two acres to strawberries. In 1906 you repeat this in the spring and later gather your crop from the first two acres. In 1907 you set out two acres more and gather the second crop from the 1905 setting and the first crop from the 1906 setting, making four acres of crop in all. This crop has exhausted the first setting (1905 patch), and you should proceed to mow off, burn over and plow and plant the two acres set out in 1905 to some other crop, leaving four acres for bearing the following summer. In 1908 you will set two acres more, and after fruiting time you will discard the 1906 patch and treat it as you did the first one. And in the spring of 1999 the first two acres is ready for resetting to strawberries. Thus you will see that with eight acres of land you may have an unbroken succession of crops from four of them, and preserve at the same time a correct system of rotation—a system that will keep your ground free from weeds, seeds and fungous and insect pests. One man can easily manage four acres and if the work is done as it should be, these four acres will yield a fine income—anywhere from $1500 to $2000 a year being a modest estimate.

P. R., North Bend, Ore. I notice after some runners leave the mother plant there is a side runner starts from them between the mother plant and the first node. Does this lateral runner make a good plant?

Plants that come from laterals never develop into heavy fruiters, and should be removed before taking root, either in the fruiting or the propagating bed. Permitting them to grow is one reason for the running out of plants. This is one of the prime objects of the breeding bed, from which first-class plants always are to be had for the fruiting bed.

A. C. L'D., Chenoa, Ill. Will it injure my strawberry plants if I mow them off, cover the patch with straw and burn the patch over as soon as it freezes up? I want to do this to get rid of the leaf roller, of which I have quite a few in my patch, and fear if I don't do something of this kind they will take my patch in the spring.

To burn over the bed so late in the fall would be taking too many chances. Remember that at this time of the year the fruit buds have formed and therefore would be subject to injury, perhaps to killing, by fire. It has been done without injury; but the treatment is too extreme for us to recommend. More than that, the burning over at this time of year would be no insurance against the leaf-roller, which pupates from eggs deposited by a small brown miller early in the spring as well as later in the season, and which might come from another patch to yours. However, burning after cropping is effective, as it destroys both broods.

C. R., Brooklyn, N. Y. This season my strawberry plants in my family garden were attacked by an insect similar to a currant worm, but somewhat smaller. All leaves were eaten through, leaving them like a veil. What is it, and what the remedy?

The worm that is eating your plants is called the saw fly. It is of grayish color, works principally on the under or shady side of the leaf, and curls up like a snail. It belongs to the leaf-chewing species and is easily gotten rid of by the use of Paris green, sprayed immediately after they begin working on the plants. The formula for this spray is seven ounces of Paris green, four pounds of unslaked lime; pour over this enough water to cover entirely and keep well stirred while slaking to prevent burning. The lime will neutralize the acid in the Paris green, thus preventing the burning of foliage. Before applying add sufficient water to make fifty gallons of the mixture. Good spraying machines may be had from any of the companies advertising them in these pages.

I. H. T., Hartford, N. C. I have a fine patch of strawberry plants. Have kept them in single hedge-rows, allowing the plants to set about ten inches apart. They are perfectly clean of weeds, and have made a fine growth. After they started to grow I gave them a top-dressing of manure. When shall I stop working them? 2. When shall I manure them again? 3. If I mulch them, when should it be done? 4. Should they be cultivated in spring before fruiting time?

You are to be congratulated upon having employed such fine cultural methods, which never fail to produce just such results as you describe. As you say your plants have made a large foliage growth we should not cultivate them later than September 1. By ceasing cultivation at that time you will aid in checking vegetative growth and encourage the fruit-producing powers of the plants.

2. The manure you already have applied should be enough to feed the plants through the first crop. After the berries are harvested and the ground once cultivated you can then give them another dressing of manure.

3. Mulching in North Carolina may be done during the winter, but some time

in January or early in February would be the better time. Place the mulching between the rows about three inches thick, and one inch thick directly over the rows.

4. We have cultivated the strawberry from early spring right through the fruiting season with success. In doing this the mulching between the rows should be raked up close to the plants and only the bare spaces cultivated. By having the straw close to the plants they are given a clean bed on which to ripen.

A. P. T., Hammond, Wis. Would it be all right to mulch between the rows with fresh lawn-mower clippings in September, and after freezing cover the plants with straw?

There would be no reason for not applying lawn clippings between the rows early in the fall and covering the plants over with straw after the first light freezing. In fact, this is an ideal way to do the work, although somewhat more expensive than applying all the mulching at one time would be.

B. M. S., Aspen, Colo. This is a climate where we always have snow in the winter and usually pretty heavy, but it does not always come when the ground is first frozen. There is very little clay in the soil and the snow lies until late in the spring. Should I mulch my plants with straw?

Where such conditions as you describe prevail danger of plants being injured by alternate freezing and thawing is lessened, and it is not necessary to mulch so early as under other conditions. But we advise you to apply mulching of some kind, if for no other purpose than to keep berries clean during the picking season, so that your berries may go to market in the most attractive shape. You need have no hesitation about applying the mulch on top of the snow.

W. F. O., Tempe, Ariz. I am thinking of setting out a strawberry patch as an investment. Here we have to depend upon irrigation exclusively. I would not be able to water them oftener than once a week. Would that be sufficient? 2. Would you use corrall or stable manure? 3. Is it possible to get the soil too rich? Arizona soil is naturally very rich and productive. 4. I wish to set plants of a number of different varieties to determine which does the best on our soil.

1. Once a week will be often enough to turn the water on the plants between the rows provided you follow irrigation with the cultivators just as soon as the surface will permit, which in your climate will be a very short time. Repeat this cultivation in three or four days. This will make a complete dust mulch that will hold the moisture in the soil until the next irrigation. A better grade of berries will be produced in this way than may be had by more frequent irrigation.

2. Either corral or stable manure will give good results, but we advise you to apply the manure sparingly, as in such a warm climate it is not well to use manure too liberally.

3. Soil may be made too rich for strawberries. Applying manure excessively will result in too much nitrogen, which stimulates the soil to too great activity; that is, makes too much plant food immediately available. This encourages a large foliage at the expense of fruit.

4. You are on the right track in the matter of selecting your plants. By taking a number of varieties you will be able quickly to decide which will best suit your fancy and your environment.

W. B., Elizabethtown, N. J. I have some rich loam land, but cannot obtain enough manure to cover the entire piece. What commercial fertilizer should I use, and how much should be applied to each acre?

First apply such manure as you can secure over the entire area, even though it be spread out very thinly. As to commercial fertilizers, we would refer you to any of the fertilizer houses advertising in The Strawberry Ask them for their complete brand for strawberries. The amount you should apply to the acre will depend entirely upon the analysis of the brands used, which should contain about as follows: Nitrogen, available, 4 per cent; phosphorous, available, 9 per cent; potassium, 10 per cent. Commercial fertilizers always give better results when used in connection with barnyard manures.

H. N., Adams, Mass. How much of a crop will a strawberry bed bring at the second picking if given good care after the first crop is picked? 2. Where can I get nitrate of soda, and what will it cost per pound? Shall I put it on the plants or scatter it along the rows? 3. Can you give me an idea how many boxes and crates I will need to handle the berries from one-half acre. Do you have your boxes and crates returned to you after shipping?

1. If a bed properly is handled after the first crop is picked it should yield as heavily the second year as it did the first. In narrowing down the rows be sure to leave the younger and more vigorous plants, treating them as mother plants, and allow a double-hedge row to form from them.

2. Nitrate of soda may be purchased from almost any fertilizer works or their distributing agencies. Write to any of the fertilizer people advertising in The Strawberry. They are reliable and will give you correct prices and good fertilizers. Nitrate of soda should be scattered along the sides of ths rows when plants are dry

The Best Fruit Paper

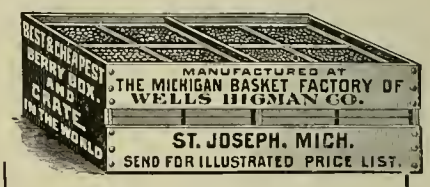
is The Fruit-Grower, published monthly at St. Joseph, Mo. The regular subscription price is a dollar a year but if you will write for free sample copy and mention this paper, you will receive a proposition whereby you may secure it one year WITHOUT COST. Every one who has a few fruit trees or a garden, should read

THE FRUIT-GROWER
ST. JOSEPH, MISSOURI

Every issue is handsomely illustrated and from 32 to 64 pages a month are filled with interesting matter pertaining to fruit-growing and gardening. The first four issues of 1906 will be handsome special numbers devoted to the following subjects:—January, The Horticultural Societies; February, Spraying; March, Gardening; April, Small Fruits. Any one of these numbers will be worth a dollar to you. We publish the "Brother Jonathan Series" of fruit books. Send your name and learn how to secure these books free.

TRADE MARK BRO. JONATHAN

Fruit-Grower Co. 167 S. 7th, St. Joseph, Mo.


BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT
THE MICHIGAN BASKET FACTORY OF
WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

HEADQUARTERS FOR

Berry Boxes

PEACH AND GRAPE

BASKETS

ALSO MELON BASKETS

Established in 1869

Experience Counts

To obtain highest prices for your fruits ship in our packages

Illustrated Price List Free

Wells-Higman Co., ST. JOSEPH, MICH.

Tree Protectors

75 cents per 100.
$5.00 per 1,000,

As valuable in summer against sun-scald, hot winds, etc., as they are in winter against cold and rabbits. Recommended by all leading Orchardists and Horticultural societies. Send for samples and testimonials. Do not wait until rabbits and mice ruin your trees. Write us today.

Wholesale Nursery Catalogue now ready. Send for copy. Agents wanted everywhere.

HART PIONEER NURSERIES,
Box 103. Fort Scott, Kan.

Peach Trees

fine, stocky, hardy, grown on the bank of Lake Erie; two miles from any peach orchard, free of borers and all diseases. Large stock of Apple, Peach, Pear, Plum, Cherry, Etc. Headquarters for ORNAMENTAL TREES, Shrubs, Roses, Plants, Vines, Bulbs, Seeds. Over 40 acres of Hardy Roses, none better grown. 44 greenhouses of Everblooming Roses, Palms, Ferns, Ficus, Geraniums, Etc. Mail size postpaid, safe arrival and satisfaction guaranteed, larger by express or freight. Direct deal will insure you the best and save you money. Try it. Valuable 168-page catalogue free. Correspondence solicited. 52 years. 1200 acres.

THE STORRS & HARRISON CO.,
Box 260 PAINESVILLE, OHIO

Mention "The Strawberry" when writing

and just before a rain. This will dissolve the soda and make it immediately available. The best time to apply it is in the spring, just after you have parted the mulch from over the rows, and do not use more than fifty pounds to the acre. Repeat this just before the buds open.

3. The number of boxes and crates required will depend somewhat upon the condition of the plants in your half-acre. You say the plants are very thrifty, and we should think it unsafe to order fewer than 150 twenty-four quart crates and boxes to match them. Never have crates and boxes returned. Use only fresh, clean and neat boxes and crates. These aid greatly in the market.

⚜ ⚜

J. L. S., Nelson, B. C. I have acquired a very desirable piece of land and am at present clearing about ten acres of small trees and brush. The land has considerable slope to the lake and a southern exposure, consequently the sun strikes it at nearly right angles, causing it to mature crops from two to three weeks earlier than does land on the opposite side of the lake. What varieties of strawberries would you advise me to set for market purposes? 2. This land is virgin soil; am now pulling the stumps; getting it ready for the plants. Would you recommend nitrate of soda as a dressing after plants are put in and started growing?

1. As your land has a southern exposure, allowing the sun to shine upon it all day, we would recommend early varieties for the larger part, of which there are many excellent varieties, such as Excelsior, August Luther, Climax, Texas and Warfield. Following these would come Parsons' Beauty, Senator Dunlap, Pride of Michigan and Sample.

2. Virgin soil of the kind you describe should contain sufficient nitrogenous plant food to develop an abundance of vegetative growth without the assistance of any stimulant, and that is the function of the nitrates.

⚜ ⚜

H. E. C., Harrisburg, Pa. I intend to resign my position with a large furnace company and engage in fruit culture. I have 200 acres of fine limestone land, rolling and well drained, nine miles from this city, and can ship to both Harrisburg and Philadelphia. Desire to start strawberry growing on a small scale, increasing as fast as the profits justify. Please give me your opinion as to the best varieties to set.

Your land certainly is well situated for a fruit farm, both as to market location and quality of soil. If you follow proper methods we predict that strawberries will become the leading product of the place, because the demand for fancy strawberries is unlimited and from no other line of horticulture can you realize such large returns in so short a time. We enjoy nothing more than to aid a beginner to start right and then watch him grow! As to varieties, we can give you no better advice than to suggest that you set one or two varieties representing each season—extra early, early, medium and late. Then at fruiting time you may watch each variety closely and thus discover the best varieties for your particular soil and market.

⚜ ⚜

C. E. F., Newcastle, Calif. Will you please advise me concerning the weight of strawberry plants?

Strawberry plants weigh from twenty-five to thirty-five pounds per thousand plants, packed ready for shipment. Express companies quote a special rate on strawberry plants of 20 per cent under regular merchandise.

⚜ ⚜

Mrs. G. C. J., Detroit, Mich. I have pinched all the bud blossoms from my plants, also all the runners but two on each side of the mother plant. Now those runners have made new plants. Should I cut this runner wire to prevent weakening of the mother plant, which I want to bear next year? Could they not be severed and set out in a new bed next spring?

You have greatly increased the fruiting power of your plants by removing the first buds and allowing few runners to set. It will not be necessary to cut the runner wire that connects the young plant to its mother, as they cease to draw nourishment from the mother after they get their own roots established in the soil. Nature has provided a way for lessening the strain on the mother plant by drying up the runner wire. They should not be removed at all, but left where they are, and they will produce fruit the same as does the mother plant. They are also the ones you will leave in order to get a second crop from this patch.

⚜ ⚜

E. W. McF., West Salem, Ohio. I have about one acre of strawberry plants that were set out last September by the former owner of the place. Many of them failed to grow. May the remainder be successfully transplanted to another part of the field, and if so, when will be the best time to do the work—fall or spring? 2. Would a top-dressing of barnyard manure put on late in the fall be of benefit to the plants?

Your experience with fall-set plants only confirms our oft-expressed views as to the season for plant-setting. In the fall the plants are building up their fruit-bud system, and this is the very moment of their lives when they should remain undisturbed. To disturb them then gives them a serious setback if it does not ac-

ACME Pulverizing Harrow

Clod Crusher and Leveler.

SENT ON TRIAL.

SIZES 3 to 17 feet

Agents Wanted.

To be returned at my expense if not satisfactory.

The best pulverizer—cheapest **Riding Harrow** on earth. The **Acme** crushes, cuts, pulverizes, turns and levels all soils for all purposes. Made entirely of cast steel and wrought iron—**indestructible.** Catalog and booklet, **"An Ideal Harrow"** by Henry Stewart sent free.

I deliver f. o. b. at New York, Chicago, Columbus, Louisville, Kansas City, Minneapolis, San Francisco, Portland, etc,

DUANE H. NASH, Sole Manufacturer, Millington, New Jersey.

BRANCH HOUSES: 110 W. Washington St., CHICAGO. 240-244 7th Ave. S., MINNEAPOLIS. 1316 W. 8th St., KANSAS CITY, MO. 216 10th St., LOUISVILLE, KY. Cor. Water and W. Gay Sts., COLUMBUS, OHIO.

PLEASE MENTION THIS PAPER.

Planet Jr. Garden Tool Quality.

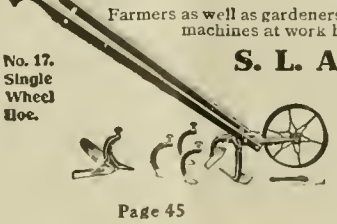
Half a million users regard the Planet Jr. line as the most practical, durable and dependable garden tools made. They stand the test of time, because "quality" is the Planet Jr. watchword. They wear well and give perfect satisfaction wherever used.

Planet Jr. No. 17 is a particularly valuable tool. It is the best of our single wheel hoes, carefully tested by practical men and the latest approved pattern, with the greatest variety of tools we have ever offered. Frame is strong and convenient, having a quick change device which permits tools to be changed without removing nuts.

Planet Jr. Harrow, Cultivator and Pulverizer is a great favorite with strawberry growers, market gardeners and farmers, because the twelve chisel shaped teeth do such thorough, fine, close work without throwing earth on small plants. The pulverizer used with the lever wheel enables the operator to set the tool exactly to any desired depth.

The Planet Jr. line includes Seeders, Wheel Hoes, Horse Hoes, Harrows, Riding Cultivators, (one or two row), Beet and Orchard Cultivators, etc., 45 in all.

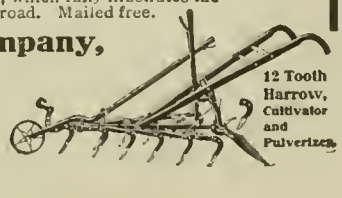
Farmers as well as gardeners need our 1906 book, which fully illustrates the machines at work both at home and abroad. Mailed free.



No. 17. Single Wheel Hoe.

S. L. Allen & Company,

Box 1106D, Philadelphia, Pa.



12 Tooth Harrow, Cultivator and Pulverizer.

tually kill them. If the remaining plants are thrifty they may be transplanted in the spring; but do not move the mother plants.

2. Yes. A top-dressing of barnyard manure put on late in the fall will be of much benefit to your plants. Be sure that it be not applied until after growth has ceased for the season. Then the soil grains will absorb the leachings for the plant's use at fruiting time, and they will develop a fine foliage and the size of the fruit will be increased.

E. D. K., Mt. Vernon, Ind. I have about one acre of ground I intend to put into strawberries. It has been in clover sod for two years. Shall I break this ground up and sow to some leguminous crop and wait another year before setting out plants, or will it be all right to set them next spring? This is fresh ground, lies high and is well drained.

The crop of clover you have plowed under will furnish an abundance of humus, and as clover is one of the very best of the legumes it will be unnecessary to grow any other before setting plants. Indeed, with a light dressing of manure, applied before setting out the plants, the soil should be in ideal condition for them, and ought to make a fine crop. Your soil being high and well drained will make it possible for you to grow the very earliest varieties without danger from frost.

C. F. P., Tecumseh, Mich. Am badly bothered with ground moles, which are burrowing my plants in all directions. Kindly advise me what to do.

As a rule ground moles do more good than harm. They are heavy feeders on the white grub and similar insects which would do much more damage than the moles if not destroyed. Of course, if the mole goes directly under a freshly set plant, in a dry season, the soil will dry out and the plant will die. There are numerous traps to be had at low prices that are excellent for catching moles. This is the best and most effective way of getting rid of these little plowmen.

C. D., Detroit, Mich. Please tell me if it will do to sow oats in my strawberry patch, between rows, about September 1, to act as a winter mulch.

We have experimented by sowing oats between the rows, but found that the oats drew too heavily upon the moisture, checking growth to such an extent as to somewhat lessen the strawberry crop. The result of our experiments were more satisfactory with Gandy than with any other variety, the reason being that the Gandy makes too much foliage at the expense of fruit unless checked in some such way. By so checking its tendency to excessive foliage we were able to turn its energies to fruit-bud production. But with varieties making scant foliage the oats proved decidedly detrimental.

Mrs. M. H. R., Brookville, Ohio. Will old sawdust do for a winter protection of strawberries? Straw is very scarce here. Would sugar-cane pomace be better than the sawdust?

Sawdust never should be used as a mulching, as it has a tendency to sour the ground. It also lies so close to the soil that it keeps the sun's rays from penetrating and thus keeps the ground too cold. Cold soil discourages activity in the bacteria of the soil, as they require a temperature of from 45 to 90 degrees if best results are to be secured. The cane pomace, on the other hand, will make an ideal mulch, as it contains no weed seed.

J. A. S., Poquonock, Conn. I notice that the foliage of my Warfield plants curls up at the edges. Please tell me what causes this, and if it will do any injury.

Your plants are affected with mildew. This is a funguous growth which is most troublesome in damp and "muggy" weather. Mildew easily is controlled by the application of Bordeaux mixture or liver of sulphur. These are only preventives, however, and should be applied at the first sight of the fungi and repeated every ten days until the mildew has been checked. It is hardly probable that this will cause you trouble next spring, as the new foliage may be entirely free from it.

B. F. N., Puget Sound. Which is the best strawberry to be grown on Puget Sound in soft loam with about half clay in it? 2. Which strawberry produces largest amount of berries in the East? 3. Do you think the Haverland will do well in Puget Sound? 4. Which is the best canning strawberry?

Most of the standard varieties do well in the Puget Sound country, but Brandywine appears to be a general favorite there.

2. It is difficult to name any certain variety as the most prolific berry in the East, but it would be hard to excel Crescent, Senator Dunlap, Parson's Beauty, Haverland, Sample or Pride of Michigan.

3. Reports from the Haverland indicate that it succeeds very finely in your country.

4. There are many good canning varieties. Warfield and Brandywine are leaders in this respect.

WRAGG TREES We Grow Them
So we can guarantee them. All the varieties known as "best" are from our nurseries. Handsome illustrated catalogue on request. THE OLD RELIABLE
..CENTRAL NURSERIES..
J. WRAGG & SONS CO., WAUKEE, IOWA.

The Naylor Combination Harrow

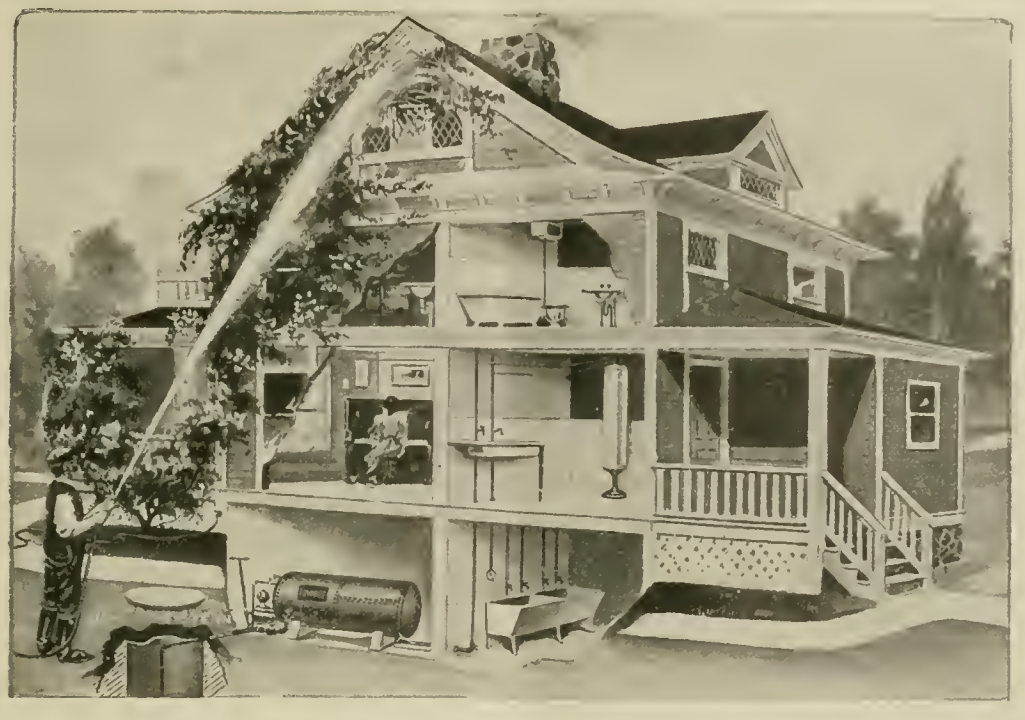
TWO TOOLS IN ONE

THE best harrow on earth because it puts the soil in ideal condition at less cost than any other. Once over the ground with the Naylor Combination will prepare the soil in much better condition than twice working with any other, and it is easily drawn by two horses. ¶ The spring teeth dig deep down, thoroughly mixing the soil; the spike teeth pulverize and level the soil, and leave it a perfect seed bed. Each harrow has eighteen spring teeth and forty-two spike teeth. Two levers enable the operator to adjust the teeth to any desired position. Just the thing for orchards and berry farms.

In the fall of 1905 the Naylor Harrow was severely tested on 23 of the best farms in St. Joseph county, Mich., and 22 of these farmers purchased them---a record unequalled by any other harrow

Don't buy a harrow until you know all about THE NAYLOR COMBINATION. Write me today and I will tell you all about it

FRANK R. FISHER, Box 5, MOOREPARK, MICH.



Water Supply for Country Homes

and Small Fruit Irrigation

IF you live in the country there is a way for you to enjoy *all* the comforts and conveniences of *a city water supply*, without a penny for water tax.

It is accomplished by the **Kewanee System.**

With the **Kewanee System** you get even *more* than city service, because, in addition to every benefit the latter affords, you may have—

—*Soft water* in your bathroom and laundry.

* * * *

The old-fashioned gravity system meant pumping water *up* in order to get it *down* again.

Now, to give the necessary pressure for fire protection and service, the elevated tank must be located on top of a tall tower. This is expensive, unsightly and unsafe.

The water freezes in winter, becomes warm and stagnant in summer, and repairs are a big item of expense.

The attic tank doesn't give sufficient pressure for fire protection.

Its weight is apt to crack the plastering, and when it leaks (as it is pretty *sure* to do) your house is flooded. Just one such expensive accident may cost you many times the price of a **Kewanee Outfit.**

—Which *cannot* flood the house because the tank is resting on *solid ground*, where it can do no damage.

The installation of a **Kewanee Pneumatic Tank** and **Outfit** in the *cellar* (or in the ground) means

—Plenty of pure, fresh water,
—Cool water in the summer,
—No freezing water in winter,
—Absolute protection from fire,
—Decrease in insurance rates,
—A plant that will last a lifetime,
—No expensive repairs,
—It solves the country water problem completely.

The **Kewanee System** will take care of *all* your needs,—for home, garden, lawn, stables, poultry houses, etc.

* * * *

It ought to make strong appeal to the man with strawberry beds. You know it is important that strawberries have *water at just the right time*. You may want to sprinkle or you may want to lay an open hose at the head of the row. Take your choice; a **Kewanee System** enables you to do either.

What's true of strawberries is true of flower beds, rose bushes, garden vegetables. You can't carry water and reach all these with a sprinkling pot.

With a **Kewanee Outfit**, you just pull the hose out to the highest point you want to irrigate and turn on the water. It will do the rest.

Mr. I. Newton Swift, Ypsilanti, Mich., is one of thousands who are using Kewanee outfits for general purposes. A late letter tells of the service he is getting from it. "A year ago I had your **Kewanee Water Supply System** installed on my farm of 240 acres. The tank is in the cellar of the house and supplies water for 75 cows and young stock, a dozen horses, 60 hogs and 500 chickens. It affords excellent fire protection for all the buildings, with an average water pressure of 40 to 50 pounds. It gives me pleasure to recommend this system, because it is bound to give complete satisfaction."

Here are also letters from other users which speak for themselves:—

H. I. Spafford, North Bennington, Vt. "It **works perfectly satisfactory**. It does all you claim for it and more too. It furnishes plenty of water to bath room, hot water boiler, lavatories, kitchen sink, and outside sill cock for watering lawn and for fire protection."

E. T. Crawford, Augusta, O. "Equal to any city water works." Rev. J. Wilbur Chapman, New York. "Perfectly delighted."

U. R. Fishel, Hope, Ind. "My **Kewanee System** is giving splendid results."

* * * *

Our Kewanee Outfits are *complete*.

Not an engine only; which in itself cannot give you a water supply, nor a tank only, which is useless unless you have some form of pumping power

—But we furnish the *whole* thing, *a complete system*, of water supply.

Our engineering department is prepared to solve your water problem, no matter how difficult that problem may now appear.

Kewanee Outfits are made in sizes, suited to the smallest cottage or largest building, or group of buildings.

We guarantee every **Kewanee Outfit** to give *perfect service*.

Send for catalogue No. 15 giving names of users in your state free if you mention this paper.

KEWANEE WATER SUPPLY CO.

Drawer R. KEWANEE, ILLINOIS

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan.

ROBERT S. FOUNTAIN,
Advertising Manager,
47 Plymouth Place, Chicago, Ill.

Subscription Price One Dollar a Year

Application made for entry at the postoffice at Three Rivers, Mich., as second-class matter.

FEBRUARY, 1906

THE subject of our cover illustration this month is the farm-garden strawberry bed of Henry L. Gill of Schoolcraft, Mich. Last summer Mr. Gill visited the farm home of The Strawberry and told of his fine success with thoroughbred plants, and ended by asking us to send our artist over and get a view of what he considered the "finest patch in the country." The invitation was accepted, and we have had the photographer's work put into colors in a way which we are sure will please both Mr. Gill and our strawberry growing friends everywhere. As an object lesson of family-garden success it would be hard to find a better.

AGAIN we present to our readers a list of advertisers whom it is a matter of pleasure and pride to count as our patrons. The lines they represent are those directly interesting to most of our readers, and the quality of goods manufactured by them are second to none in the world. More than that, their methods of doing business are based upon the strictest lines of honor and integrity. As we said in the preceding issue of this magazine, we wish this introduction to be in the nature of a personal presentation of friends for whom we stand sponsor, confident that whatever business may follow will be mutually satisfactory and profitable

---

NOWADAYS anyone who has a patch of ground for growing vegetables can enjoy all the delights and profits of gardening without the hard work that made this pursuit drudgery before the invention of Planet Jr. garden tools. These famous implements, now known and used the world over, have worked a revolution in the methods of the farm and truck gardener. Their use has resulted in an immense saving of time, labor and money, because with Planet Jr. tools one man can easily do the work of three to six men in the old way, and do it better, too. The Planet Jr. line is made by S. L. Allen & Co., in good old Philadelphia, famed for its many substantial and reliable manufacturers. If you are interested in gardening, be sure to write S. L. Allen & Co., Box 1106D, Philadelphia, for their splendid new 1906 catalogue, which is full of beautiful half-tone cuts of characteristic scenes in farm and garden life. This valuable and interesting book will be sent you free for the asking.

ANOTHER implement that has found universal favor in all lands where it has been seen is the Acme pulverizing harrow, clod crusher and leveler, made by Duane H. Nash, of Millington, N. J. This is an invention of such extraordinary value as commands the interest and practical investigation of every soil tiller. It thoroughly mixes the soil, it brings to the surface any clods in the earth and crushes them to fineness, putting the soil in ideal condition for the most intensive cultivation. It is made entirely of cast steel and wrought iron and is practically indestructible. We know from experience its great value to the man who grows crops, and we urge our friends to send for the booklet put out by Mr. Nash on "An Ideal Harrow" and read up more fully on the subject.

AMONG those who are contributing to the success of the poultry folk in this country few enjoy greater popularity than M. M. Johnson of Clay Center, Neb., whose splendid "Old Trusty" incubators and brooders are known throughout the length and breadth of the land. The particular object of this mention is to call our readers' attention to the very large and fine annual catalogue just issued by Mr. Johnson. It is a veritable picture book and will prove of interest and value to every member of the family. If you are interested in poultry, send for a copy of the book, mentioning The Strawberry.

THE Buckeye Incubator Co. is another friend of the poultryman that has proved its right to the kindly consideration of all who have used its products. One thing about the Buckeye is its offer to send an incubator to you on forty days' trial, thus giving you a chance to test the machine fully before making an investment in one. This shows the company's confidence in its own manufactures and in the good faith of the public. The Buckeye Co. will send you a fine catalogue without costing you a cent beyond a postal card. Address the Buckeye Incubator Co., Box 49, Springfield, Ohio.

WHAT strawberry grower is unfamiliar with that suggestive phrase, "The basket with the rim"? If there be one who does not know of this basket he should lose no time in getting acquainted with it and with the Mullen Bros. Paper Co., who manufacture it. Everybody who has packed strawberries for market knows how greatly the appearance and strength of the box aid in making the fruit attractive to the purchasers. The box with the rim is handsome, durable, convenient and sanitary. Write to Mullen Bros'. Paper Co., Department B., St. Joseph, Mich., and get a catalogue and sample box. Both will be sent to you without cost.

WHO ever tires of the evergreens with their perennial summertime look, their pungent and health-giving odors and their unique and beautiful landscape effects! None who comprehend the nature and loveliness of these graceful trees but will turn to them when he sets out to adorn his home grounds, and if our friends are looking for such trees, either for their beauty or their great practical value as windbreak or hedge or forest grove, we recommend to them without hesitation the products of D. Hill of Dundee, Ill., the evergreen specialist, whose years of study and practical experience have made him famous in his line.

TREE-FRUIT folk always are interested in anything that will protect their orchards from animal, insect and other enemies of the trees, and the Hart Pioneer Nurseries of Fort Scott, Kan., is putting out a protector that really protects. If you will notice the advertisement of that company which appears in this issue you will see just how it works. Rabbits, mice and borers, hot winds and sunscald find in these protectors a perfect foil, and judging from the flattering testimonials of orchardists who have used these protectors in great numbers, he is taking a great risk that he might insure against at trifling expense who fails to give the trees in his orchard the protection these unique and simple devices afford.

STRAWBERRY growers are particularly interested in the fertilizer question, especially those who find it difficult to secure sufficient quantities of barnyard manure to bring up to and keep their soil in a high state of fertility. We are glad in this connection to call attention to the Buffalo Fertilizer Co., of Buffalo, N. Y., whose fertilizers, especially made to suit the needs of the strawberry, are of the highest order of purity and strength. In Michigan, where he is personally known for his devotion to high agricultural ideals by every farmer in it, the fact that Colon C. Lillie is the representative of this company is of itself sufficient reason for giving to the house and its goods unreserved confidence.

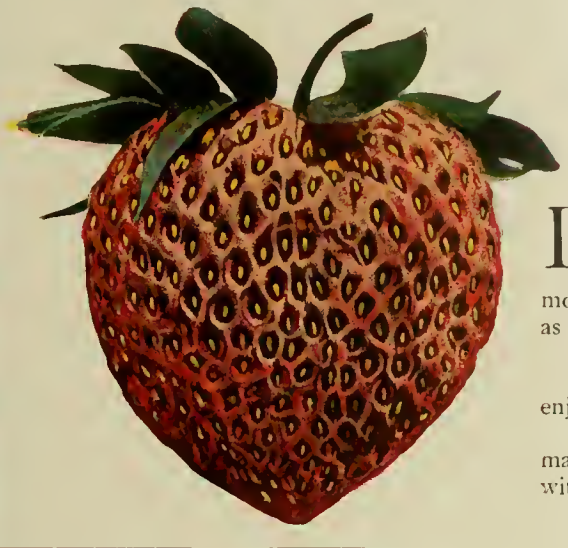
EVERYBODY knows Roland Morrill, the famous peach man of Michigan and Texas, and everybody ought to know the splendid spraying outfits put out by the company of which he is the senior member. We refer to the Morrill & Morley company of Benton Harbor, Mich., whose spraying machines have won such high praise from the practical orchard men and small fruit growers of the country. Mr. Morrill, himself a fruit grower of international fame, is an advocate of the spray pump as a means of saving the business of the fruitman, and in his practice and study has aided in working out an ideal machine for the work. The well-known "Eclipse" spraying outfit is the product of that company. Write them today and get a copy of their free catalogue.

HORTICULTURAL journals that stand for the practical man in his work are not over-numerous in the world, and it is with particular pleasure that we call the attention of our readers to a most worthy contemporary, The Fruit Grower of St. Joseph, Mo. This publication has won a place in the affections and confidence of its readers that must be a matter of pride to its publishers. It covers its field with a fidelity and intelligence that merits cordial support, and it will pay our friends to read the advertisement of this monthly magazine, which appears in this issue.

ONE of the institutions which the publishers of The Strawberry have opportunity to know well because of its propinquity, is the National Tool Co., No. 2 Third Ave., Three Rivers, Mich. This company is putting out every day large numbers of a combination tool that is attracting general attention, so handy and universal is it in its usefulness. Besides being a hammer and a hatchet, it possesses ten more distinct uses, and will come into service in house, barn or field many times each day.

WELLS-HIGMAN CO., of St. Joseph, Mich., whose house for nearly forty years has supplied strawberry, peach and grape baskets to the fruitmen of the country, have an established reputation in this regard second to none. And they add to age and experience that spirit of progress which keeps their product up to the latest and best in their lines. This company issues an illustrated price list which strawberry folk and others ought to have if they would be fully posted as to the box situation. Now is the time to be preparing for the big crops that are sure to come this year, and one of the things you should do is to write the Wells-Higman Co. for their price list and see how well they are able to fit you out with everything in the box line.

Big Money in Strawberries



We Teach You How to Grow Them

DO you know, dear reader, that raising strawberries for market is an exceedingly profitable business? Well, it is, if you know how to do it right. And it is not only a big money maker, but is a very pleasant and healthful pursuit as well, as many of our pupils can testify.

But you must thoroughly understand how to go about it.

You can't succeed in getting all there is in it of health, enjoyment and good hard dollars without proper training.

And to get that practical training and preparation that will make success absolutely certain, you must put yourself in touch with those who are equipped by experience to help you.

Isn't that true?

THE KELLOGG CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE teaches you the way and tells you how to grow big crops of fancy berries and how to pick and pack them for top prices.

We show you how to get more select berries from one acre than two will produce of the "other kind" under the old heads.

We make every detail of the work plain and tell you just when and how to do everything to get the very best results.

We show you how to lower the expense of production and increase your receipts.

We explain in a practical way how large families with small gardens can grow an abundance of choice berries for home use and make money, too.

We prepare the young man for a good paying position.

There is a great call for foremen on berry farms. The demand is far in excess of the supply. We fit you for that work.

Our course of instruction trains the young woman for an ideal out-of-door occupation in which she can make much more than an independent living.

The first person to join this school was a young woman who has won splendid success as a strawberry culturist in Minnesota.

And among our hundreds of pupils are many women who are enthusiasts in the business.

Miss S. M. Pollard, of Woodside, Minn., sends us a clipping from a local newspaper and says that it was through our instruction that her success as referred to therein was made. She says that the 1905 crop was her first attempt at raising strawberries, yet from about eight rods of plants, she had sold on July 19th, 400 quarts and had about 300 more to gather.

The newspaper clipping follows:

> "The largest and nicest strawberries we have had the pleasure of seeing this year were brought to our office by Miss S. M. Pollard, of Woodside. The size of the berries is phenomenal, some of them measuring five and one-half inches in circumference, while the flavor is sweeter and it is more juicy than the western and southern berry."

No other out-of-door employment offers larger opportunity to the enterprising than does strawberry culture, and the field is a wide and open one. No grower is too large and none too small to be benefited by our teachings.

The better you understand your business the more money you can make and with less work.

Now, if you want to know all about our methods, send us your name and address and $1.00, and you will be enrolled as a full member of the great Correspondence School.

And "The Strawberry", our interesting and valuable publication, will come to you each month full of instruction and tell you just what to do in your strawberry field at that particular time, and will keep you from making expensive mistakes.

"The Strawberry" will contain no puzzles, no visionary stories, no imaginary theories; nothing but strictly business instruction, common sense and actual experience from the world's greatest experts. It is the only journal in the world devoted exclusively to the interests of strawberry producers

What We Did for One Pupil

East Jaffrey, N. H., Nov. 6, '05.

R. M. KELLOGG CO.

In the spring of 1904 I ordered 1,000 of your Thoroughbred Pedigree Plants, set them on one-eighth acre of good soil and handled them according to your instructions. I picked off the buds the first year and what do you think I got in return? I picked and sold 900 quarts of nice, big ripe berries, sold them for 15 to 18 cents per quart, making in all $156; that is just what 1,000 plants did for me. I picked and filled standard quart baskets with fifteen berries and can furnish proof if anyone doubts my word. I shall want 10,000 of your Pedigree plants for next spring; can I get them? Yours truly,

ISRAEL VALWAY.

The Strawberry Bed Interests the Entire Family

Don't delay, but write us today. Address

R. M. Kellogg Publishing Company, 118 Portage Ave., Three Rivers, Mich.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

General Offices, Nurseries, Packing Houses and Shipping Station

LOUISIANA, MO.

BRANCHES { Starkdale, Mo. / Rockport, Ill. / Portland, N. Y. / Dansville, N. Y. / Fayetteville, Ark. / Atlantic, Iowa

Oldest Nurseries in the West
Established 1825

Largest Nurseries in the World
4675 Acres

WE PAY FREIGHT

on $5 orders (one-fourth cash to be sent with order) at prices quoted in our Wholesale Price List, to any R. R. Station in

ARKANSAS KANSAS ILLINOIS MISSOURI
INDIANA NEBRASKA IOWA OHIO

On Orders Amounting to $7.50 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ALABAMA	DELAWARE	DIS. COLUMBIA
CONNECTICUT	INDIAN TER.	KENTUCKY
GEORGIA	MARYLAND	MICHIGAN
LOUISIANA	MISSISSIPPI	NEW JERSEY
MINNESOTA	N. CAROLINA	OKLAHOMA
NEW YORK	S. CAROLINA	RHODE ISLAND
PENNSYLVANIA	TENNESSEE	WISCONSIN
VIRGINIA	TEXAS	W. VIRGINIA

On Orders Amounting to $10 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ARIZONA	CALIFORNIA
COLORADO	FLORIDA
IDAHO	MAINE
MONTANA	MASSACHU'TS
NEVADA	N. HAMPSHIRE
OREGON	NEW MEXICO
UTAH	NORTH DAKOTA
VERMONT	SOUTH DAKOTA
WYOMING	WASHINGTON

We make no charge for Boxing and Packing. We Do NOT pay freight on orders amounting to less than specified, nor unless one-fourth cash is received with order, nor on shipments by express.

GRAPE VINES—In order to carry out our policy of furnishing only the BEST, we maintain a nursery at Portland, N. Y., in the heart of the famous Fredonia—Chautauqua Grape Belt, which produces the finest vines grown in the U. S. We are headquarters for all the leading Commercial sorts.

WARNING—We are sole owners of the names Black Ben, Champion, Delicious, King David and other leading commercial apples, Gold plum, Stark-Star grape, etc., all of which are our Trade-Marks, duly registered in the U. S. Patent Office under the new law approved Feb. 20, 1905. Planters are warned against infringers offering trees under these names or trees claimed to be "just the same." We offer the GENUINE at prices as low as GOOD trees can be produced. Wise buyers will take no chances.

STARK TREES SUCCEED

WHERE OTHERS FAIL—

BECAUSE, three generations of Stark Nurserymen have made the production of the BEST trees their life study, their life work;

BECAUSE, Stark Trees are produced under an exact science from the time the seed are selected until the tree is delivered carefully packed for transportation;

BECAUSE, in selecting buds and scions only healthy, vigorous, highly prolific trees of the best strains are used as parentage;

BECAUSE, a tree grown with all conditions favorable has high vitality and will withstand climatic rigors and unfavorable soil even better than the stunted weakling propagated in just such uncongenial surroundings;

BECAUSE, having eight nurseries in five states, each sort is grown under the most favorable conditions of soil and climate, resulting in hardy, healthy, thrifty trees that LIVE and BEAR;

BECAUSE, we are constantly on the watch, not only for valuable new varieties of fruits, but for the best strains as they are developed. As soon as an improved strain is found it is propagated and the inferior discarded;

BECAUSE, only THE BEST roots, scions, soil, location, labor, cultivation, pruning, digging, storing and packing enter into the production and handling of Stark Trees. We ask for your orders

BECAUSE, Stark Trees have given satisfaction in every state and territory for 80 years, with the result that Stark Nurseries have constantly grown (the only true test of merit) until they are now the LARGEST IN THE WORLD. We are not "here to-day and gone to-morrow."

APPLE SEEDLINGS—We offer for the coming season's trade several million that, owing to favorable season, are EXTRA FINE. They are Iowa grown from Vermont seed and our own experience has demonstrated that they are superior to all others we have used. Also a fine lot of Catalpa, Black Locust, Mahaleb Cherry, French and Japan Pear Seedlings, Plum Stocks, etc., Vermont Apple Seed.

STARK FRUIT BOOK "WORLD'S FAIR FRUITS" shows in natural colors and accurately describes 216 varieties of fruit. Send 50 cts. and we will send the book post-paid and a REBATE TICKET permitting its return within 60 days when the 50 cts. will be refunded. Or the Rebate Ticket is good for $1 part payment on a $10 order for nursery stock.

Send for Wholesale Price List, Order Sheets, Descriptive Circulars, Half-tone Views, etc.—FREE. WE PAY CASH Weekly and want MORE Home and Traveling Salesmen. Address, STARK BRO'S NURSERIES & ORCHARDS CO., Desk I 1, Louisiana, MO.

March 1906

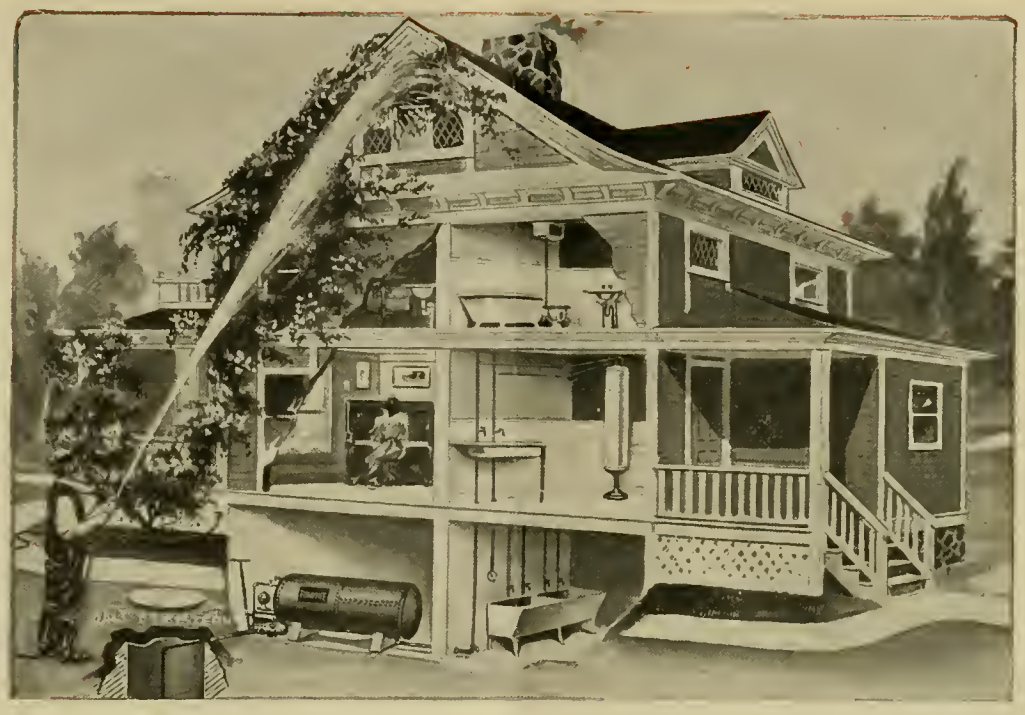
THE STRAWBERRY

"The Lord might have made a better thing than the Strawberry---but He didn't."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN



Water Supply for Country Homes

and Small Fruit Irrigation

IF you live in the country there is a way for you to enjoy *all* the comforts and conveniences of *a city water supply*, without a penny for water tax.

It is accomplished by the **Kewanee System.**

With the **Kewanee System** you get even *more* than city service, because, in addition to every benefit the latter affords, you may have—

—*Soft water* in your bathroom and laundry.

* * * *

The old-fashioned gravity system meant pumping water up in order to get it *down* again.

Now, to give the necessary pressure for fire protection and service, the elevated tank must be located on top of a tall tower. This is expensive, unsightly and unsafe.

The water freezes in winter, becomes warm and stagnant in summer, and repairs are a big item of expense.

The attic tank doesn't give sufficient pressure for fire protection.

Its weight is apt to crack the plastering, and when it leaks (as it is pretty *sure* to do) your house is flooded. Just one such expensive accident may cost you many times the price of a **Kewanee Outfit.**

—Which *cannot* flood the house because the tank is resting on *solid ground*, where it can do no damage.

The installation of a **Kewanee Pneumatic Tank** and **Outfit** in the *cellar* (or in the ground) means

—Plenty of pure, fresh water,
—Cool water in the summer,
—No freezing water in winter,
—Absolute protection from fire,
—Decrease in insurance rates,
—A plant that will last a lifetime,
—No expensive repairs,
It solves the country water problem completely.

The **Kewanee System** will take care of *all* your needs,—for home, garden, lawn, stables, poultry houses, etc.

* * * *

It ought to make strong appeal to the man with strawberry beds. You know it is important that strawberries have *water at just the right time.* You may want to sprinkle or you may want to lay an open hose at the head of the row. Take your choice; a **Kewanee System** enables you to do either.

What's true of strawberries is true of flower beds, rose bushes, garden vegetables. You can't carry water and reach all these with a sprinkling pot.

With a **Kewanee Outfit**, you just pull the hose out to the highest point you want to irrigate and turn on the water. It will do the rest.

Mr. I. Newton Swift, Ypsilanti, Mich., is one of thousands who are using Kewanee outfits for general purposes. A late letter tells of the service he is getting from it. "A year ago I had your **Kewanee Water Supply System** installed on my farm of 240 acres. The tank is in the cellar of the house and supplies water for 75 cows and young stock, a dozen horses, 60 hogs and 500 chickens. It affords excellent fire protection for all the buildings, with an average water pressure of 40 to 50 pounds. It gives me pleasure to recommend this system, because it is bound to give complete satisfaction."

Here are also letters from other users which speak for themselves:—

H. I. Spafford, North Bennington, Vt. "It **works perfectly satisfactory.** It does all you claim for it and more too. It furnishes plenty of water to bath room, hot water boiler, lavatories, kitchen sink, and outside sill cock for watering lawn and for fire protection."

E. T. Crawford, Augusta, O. "Equal to any city water works." Rev. J. Wilbur Chapman, New York. "Perfectly delighted."

U. R. Fishel, Hope, Ind. "My **Kewanee System** is giving splendid results."

* * * *

Our Kewanee Outfits are *complete.*

Not an engine only; which in itself cannot give you a water supply, nor a tank only, which is useless unless you have some form of pumping power.

But we furnish the *whole* thing, *a complete system*, of water supply.

Our engineering department is prepared to solve your water problem,—no matter how difficult that problem may now appear.

Kewanee Outfits are made in sizes, suited to the smallest cottage or largest building, —or group of buildings.

We guarantee every **Kewanee Outfit** to give *perfect service.*

Send for catalogue No. 15 giving names of users in your state free if you mention this paper.

KEWANEE WATER SUPPLY CO.

Drawer R. KEWANEE, ILLINOIS

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 3 Three Rivers, Mich., March, 1906 $1.00 a Year

WITH the opening of the Southern shipping season but a few weeks away, the strawberry growers who have thus far neglected to arrange for the marketing of their crops or to provide some plan for their economical and profitable handling should be up and doing. Whether you are engaged in growing the fruit on an extensive commercial scale, or simply grow a limited quantity for market, th s applies with equal force, for all, both great and small, desire to make a success of any enterprise in which they are engaged.

Success in the strawberry business lies not alone in good soil, good plants, good cultivation, clean picking, honest packing. All these are elements of inestimable importance. But if you have had or done all these, yet fail to market your product wisely and well, the business, as a business, is a a failure. Success at this point presupposes a knowledge of markets and market conditions. Of course, if your product is limited and you have a local market amply large to consume it, the problem is a very simple one. But in the nature of the case, these instances, considering the great number of persons interested and the vastness of the total output, must be rare. The man with a small output and a local market, with good .berries, attractively packed on the lines of a "square deal," has sold his crop when he has accomplished these points. But to the great commercial growers, who carry on extensive enterprises, every year becoming larger and more complex in their relations to the world of commerce, problems of an entirely different order call for solution, and to these are the suggestions that follow more particularly addressed.

TWIN DOUBLE-HEDGE ROW ON M. N. EDGERTON'S FARM, PETOSKEY, MICH.
(See Mr. Edgerton's Article on Next Page)

California orange growers, driven, some years ago, to organize for mutual defense against extortionate freight rates on the one hand and dishonest practices on the part of commission men on the other, found that in organization alone could they defy and ultimately defeat these powerful combinations which were driving them on to the rocks of ruin. From their experiences we may learn some valuable lessons. The first work of the new organization was to study the situation, discover the weak spots in its own armor and prepare to meet conditions as they were. One of the first discoveries was this—and let us ever have it before us: The thing that had made many of the practices of the dishonest commission men possible was the indifferent quality of much of the fruit that was sent East from California. Smith and Jones and Brown might pick the best of oranges only, and pack them to the queen's taste, but if some of Bunker's weazened or rotting oranges went into the same car, the entire consignment suffered a loss. Therefore, said the leaders of the organization, the first thing for us to do is to standardize our products, grade them rigidly and put each grade by itself and make it fight its own battles and command its own price. This was done and in such a way that every box shipped out under the seal of that organization was accepted without question and received the market price. Of course, such an organization as this carried weight in dealing with transportation companies, and although we cannot say that perfection even has been approximated in this direction, and probably never shall be, so long as unrestrained monopoly and unjust discriminations are permitted in transportation, the improvement even here was considerable under the operation of this organization.

The necessity of such an organization is even more pronounced in the case of strawberry growers, for they must ship their product on the instant, and it is all important that it be shipped to a waiting and hungry market rather than a glutted one. Last season there were whole train loads of berries dumped out upon the ground at Wilmington, N. C., because of the failure of the iced-car lines to furnish cars in sufficient number to handle the crop. Fortunately, in this instance, there was an organization, and the car company was under a contract of such a

COPYRIGHT, 1906, BY THE KELLOGG PUBLISHING CO.

nature that it was compelled to pay for the lost fruit. But that did not save the fruit, which was bad for the consumer, and the same circumstance might arise in a great number of cases where the transportation company could not be held. And too, that represents but one element in the case. Suppose the car company had been prepared to transport every crate of berries offered it; if they had been taken to glutted markets, where prices were demoralized, the car company would have escaped, but the growers could not have done so, and would have been compelled to pocket their losses.

And this is the danger that threatens every strawberry growing district where there is no central organization whose business it is to see that the markets are properly supplied—neither under-supplied or over-supplied—but so supplied that while its reasonable wants are satisfied, there shall be no surplusage to throw away or demoralize prices. The latter too often happens under our present unscientific and uneconomic methods of handling. It is wholly unnecessary. A local organization, each grower being a member with equal voice in its direction, and having a secretary or general manager who, on the one hand, has the courage to make each member do his full duty in contributing only marketable berries, graded uniformly to a certain standard; and possessed of a thorough knowledge of markets, on the other—such an organization with such a manager would add inestimably to the profits of every grower belonging to it and would contribute greatly to the general success of the business everywhere.

Now such an organization is within reach of every community where strawberry growing is done on a commercial scale, and the individual members of it are willing to work cooperatively together. And now is the time for growers to get together and organize for the season of 1906. It is not a new idea, it is not an untried method. it is no experiment. It has been done, it is being done, and it may be done, and with large success, in your own community. If there is no organization in your community, we hope that you, as a reader of The Strawberry and interested in its work of advancing the strawberry ihdustry in all ways and everywhere, will at once call a meeting of your neighbors who are in the business and take steps to effect an organization along the lines suggested here.

HUNDREDS of letters have come to The Strawberry of a congratulatory nature. Some of them we have quoted from in another place in this issue. The object of this paragraph is to say to our friends that there is a way they may make their good wishes felt, not only in our own behalf, but in the interest of their friends, and that is by calling to the attention of their neighbors the value of this magazine to everybody interested, largely or moderately, in the production of strawberries. Send us in the names of your friends whom you think would like to have the magazine and, if you have opportunity, show them copies of it. Just consider yourself a committee of one to extend the circulation of The Strawberry in your neighborhood.

Advantages of Double Hedge-Row

By M. N. Edgerton

OF the several different systems of strawberry culture tried by us the double-hedge row has proved to be the most satisfactory. For years we were experimenting with different plans but not until recently did we hit on the right thing. Our first berries were grown on the thinly matted row plan, the rows being four feet apart and the young plants layered until the row was filled out. Eighteen inches were reserved for a path and no plant in the row was set closer to its neighbor than six inches. The objection to this system was that the plants were too crowded, to do their best, and there was difficulty in maintaining the desired surface mulch.

Next we tried the diagonal-hedge row, the plants being set in rows three and one-half feet apart. This we found to be an improvement over the other, yet it came short of our ideal.

The single-hedge row, with rows three feet apart, admitted of working the entire surface of the bed with horse-drawn tools. But there was this objection: the rows were too far apart. All the ground could not be occupied with the feeding roots from the strawberry plants, and at two feet apart the rows would have been too close. The path would not be wide enough at picking time.

With the double-hedge row we have an average distance between rows of twenty-four inches, and yet between the rows which make the paths of the pickers, there is a distance of thirty-four inches from center to center of the row of plants. This leaves the other rows sixteen inches apart. By having an extension on the horse cultivator to which is attached a knife-like arrangement, one wide and one narrow row may be worked at each passage. In picking, the picker usually goes up and back in the same path, taking one of the double rows each way. This system of culture reduces to a minimum the labor required to keep a bed clean, as well as that required to clean out a bed after fruiting,

The photo-engraving on the preceding page shows one of our beds grown upon the double-hedge row plan. We set the plants three feet apart in the row, which admits of our cultivating both ways over the field until the plants are layered. We aim to space the plants in the rows at from eight to ten inches apart.

Petoskey, Mich.

We heartily indorse Mr. Edgerton's method of growing strawberries. His plan is what we call twin double-hedge. To grow plants in this system, first make two marks sixteen inches apart for the twin rows and set the plants twenty-four inches apart in each of these marks, and make the twin rows three feet apart. This three-foot space is for cultivation and also furnishes a path for pickers at fruiting time. Any good blacksmith can arrange an attachment on the side of your cultivator to reach over between the twin rows for the purpose of breaking up the crust so as to hold moisture and lessen the work of hoeing.—Editor Strawberry.

Reasons for My Faith

By Mrs. Emma Flora

FOR fifteen years I have been in the strawberry business, but no previous year ever gave me such abundant returns as last. Until 1894 I had been getting my plants from friends and neighbors. But in that season I made up my mind I was going to try some thoroughbreds, and secured 1500 plants that spring. They set nearly half an acre. It was a hard spring as to weather; our neighbors lost all their berries through heavy late frosts. But my plants bore profusely and netted me $150.

Not only so, but I had the satisfaction of having the best and most beautiful berries ever seen here; people came from long distances to see my berries and declared they never saw such plants and such clusters of strawberries. Certainly I never did myself—and I am counting on doing even better next year.

I wish I had a photograph of that patch; but that is out of the question now. Next spring, when I get my new plants set out and they get to growing, I shall have a photograph of both the new and the old taken so that you may see how very fine it is. Do you wonder that I am committed to the pedigree idea?

Bowling Green, Ohio.

ONE friend fears that if too much encouragement is given to people to engage in strawberry growing it will hurt the business, saying that there are always a number of persons engaging in that line in his neighborhood who continue in it just long enough to demoralize prices and then quit the business. Doubtless true; we observe the same phenomenon in all sorts of vocations. But that is the fault of the men, not the business. And our interest and yours is in the one who does stick it out and compels success, who overcomes all difficulties and in whose lexicon "there's no such word as fail!"

How to Prune and Set Strawberry Plants

PLANT-SETTING time has come in the South, and only a few weeks more will elapse before we of the North will be in the fields engaged in this most important work—important that it be perfectly done if we are to secure the big results that are possible in strawberry production. The purpose of this article is to give our readers the plainest possible instruction as to the way in which to take care of their plants after receiving them from the nursery, and the illustrations herewith, showing how to to prune the plants, the position in which to hold the plant while setting; also the way the plant should appear after being set will aid very much in this direction.

The first thing to do upon receipt of your plants is to sort them over, putting the bunches of each variety in a place by themselves, seeing to it that before opening the bunches you have them so identified and arranged that there may be no possibility of mixing the varieties. Every bunch of plants should contain a label, giving the name of the variety, also telling whether it is pistillate or bisexual.

Now if your ground is not ready for the plants, heel them in. First dig a V-shaped trench, open the bunches and spread them out in the trench as shown in Cut 6, being sure to put each variety to itself and put up a stake bearing the name of that particular variety. Then there will be no difficulty in getting the variety you wish to plant first. As fast as the plants are placed in the trench, the dirt should be drawn up over the roots, and the plants should appear as shown in Cut 2.

If, however, the ground is ready take the plants, proceed at once to prepare the plants for setting. No plant is ready for setting until its roots are trimmed back at least one-third. This is done by taking a full bunch and a pair of sharp shears as shown in Cut 1. If you will note Cut 5 you will see just the position in which to hold the plant while setting. The thumb and forefinger are placed at the crown, the hand lies flat on the surface of the ground, and holds the crown at the surface level, preventing the plant from going too deeply into the soil. After the plant is set it should appear as in Cut 3.

There are several advantages in pruning the plants. In the first place, if the roots are not trimmed, the man who is setting the plants out is apt to double the roots up, and when this occurs it requires fully a week or ten days longer for the feeding roots to start and the plants go to feeding on mother earth. During this time it is using up the vitality that is stored up in the crown of the plant. When the roots are cut back, the wound will callous and numerous little feeders will start. These will immediately go to feeding on the mineral elements of the soil. This results in developing a much larger root system, which in turn builds up a larger crown, the results being a heavier foliage and a more abundant yield or strawberries. When the plant is entirely dormant the pruning may be done more closely than where the plants are green. We have tested pruned and unpruned plants side by side—the same varieties and grown under the same conditions—and the results invariably have been in favor of the pruned plants, both in vigorous vegetative growth and in the production of fruit buds.

Too much thought may not be given to the method of arranging the plants so as to secure proper pollenation. Be careful to set one variety at a time. If, for instance, you are setting Warfields, mated on one side with Texas, and on the other with Dunlap, first set your Texas, then skip seven rows, three of which will be left for Warfield and one for Senator Dunlap, to be followed in turn by three more Warfields, when another row of Texas will be set out; and repeat until the field is set.

Then comes the cultivator which should follow immediately after the plants are set. If this is not done, a large quantity of valuable moisture will be wasted through the tracks made by the planters. We have found the best implement for this purpose to be the Planet Jr. twelve-tooth cultivator. If you would secure the highest possible results cultivation should be repeated weekly throughout the season, unless the ground is too wet to permit it.

And don't forget the hoe. All the crust should be broken close up to the roots of the plants. This prevents weed seed from germinating, conserves moisture and admits air to the bacterial germs. The best time to kill a weed is before it gets started, and the hoe is the most effective tool with which to accomplish it.

After the plants receive one or two cultivations and hoeings, they will start blooming. The blooms should be picked off at once. Full instructions concerning this important work will be given in the April issue of The Strawberry,

An important consideration in this work is that of tools. The best device that we ever have seen is the metal

CUT 1- PRUNING A BUNCH OF PLANTS

CUT 2—HEELING IN PROCESS COMPLETE

Shows how the plants should appear after being heeled in. Note that the soil has been drawn into the trench over the roots and that the foliage and crown appear above the surface. If it is to take some time to prepare your soil, shade them lightly with straw. In doing this do not cover them so heavily as to bleach them.

CUT 3—PLANT AFTER SETTING

dibble which appears herewith. The blade is of steel, which is attached to a malleable shank. You will notice that the blade goes down to almost a needle point, making it very easy to press into the soil. The dibble should be forced to a depth of about six inches then pressed from you so as to make an opening large enough to take in the roots of the plant. The roots should be placed in this opening before the dibble is withdrawn, then remove the dibble and thrust it into the soil about two inches from this opening and draw it firmly toward you, which will press the earth firmly against the roots of the plant. Then firm the soil with the fingers about the crown of the plant. Your plants should be carried in a basket, shaded with some top-covering. As the one setting plants moves along the row the basket should be carried along with one hand, while the other hand is engaged with the dibble. With this little tool one man will set from two to three thousand plants a day, when he once gets into the swing, and there is no reason why every plant so set should not live.

Growing Plants and Fruit Together

THE surest way to make failure of the work of strawberry culture is to practice the method, all too common, of growing plants and fruit in the same bed. It doubtless is the fact that more growers fail by following this method than from any other single cause.

It simply is impossible for a plant to do two things successfully at the same time. To grow strong plants requires quite a different set of conditions from those required to grow berries, just as it requires one kind of food to produce milk in the cow and another kind of food to produce fat.

To grow a strong, well-developed and perfectly balanced plant requires science, both as to the feeding and cultivation of the plants. How to select mother plants and how to tell when they are prepared to make runners; what runners to set and and what not to set—these require quite as much science as is needed by the chemist to know what elements to put together in order to secure certain desired effects.

Too many growers appear to think that to grow plants successfully one needs merely to set out the plants and let them make runners, or multiply themselves. At setting time they dig the alley plants, and leave the center of the row to fruit, and great is their disappointment because the big red berries don't pile up all along the rows. They fail to consider that the entire strength of their plants was exhausted in multiplying themselves.

Then the plants that are left are matted and neither roots or foliage have room in which to develop, the roots of one plant robbing the others like so many pigs rushing for the same ear of corn.

CUT 5---POSITION FOR HOLDING PLANT WHEN SETTING

Turn a hundred pigs on ten square rods of clover and see how many big fat porkers you will get as a result. This rule of feeding applies alike to plants and animals. Sometimes a grower says he piled on enough manure to one acre to feed two acres of plants. Doubtless he did put on a needless quantity of manure, forgetting that only a certain quantity of food can be digested and assimilated by the plant, and that this plant food must first be dissolved by moisture and taken up by the soil grains before it can be used by the plants.

Another point to be considered is the fact that plants require a great deal of water, and if they can't get it they will take up the leachings of this surplusage of plant food (manure) which makes a succulent, undeveloped, unbalanced, sickly plant. To use the analogy of the hog again, feed an entire load of corn to the hogs, unaccompanied by plenty of water, and the fat will fail to develop on their ribs.

There is a surprising likeness between animal and plant life, and if we will bear this fact in mind and use the same reason in the treatment of plants that we do in the case of animals, it will aid us not a little in attaining the results we seek. And never try to do anything not in harmony with nature's laws.

OVER in England the Countess of Warwick is doing a great work for young women by getting them interested in domestic science, in cultivating the soil and in carrying forward enterprises in animal husbandry. Some of the young women who are members of high social circles in Great Britain, but tired of the frivolities and follies of a life spent in idleness, have become expert poultry raisers, and others are proud of the fine porkers they send to the shambles. How infinitely preferable it would be if they were engaged in the refining and delightful work of strawberry growing! And why may not our own sweet American girls take a lesson from the work their British friends are doing, and put into practical operation some of the splendid opportunities to physical health and financial independence that only await their energy

CUT 6---HEELING IN PLANTS

This illustration shows the plants placed in the V-shaped trench ready to be heeled in. This should be done only when the ground is not ready for the plants. Spread plants so that each will come in contact with the soil.

and skill to give them fine returns? The story of Miss Pollard in February Strawberry ought to be an inspiration to every woman, young or old, who reads it, and we hope there shall be many to follow her example.

ACME Pulverizing Harrow
Clod Crusher and Leveler.
SENT ON TRIAL.
SIZES
3 to 17 feet
Agents Wanted.
To be returned at my expense if not satisfactory.
The best pulverizer—cheapest Riding Harrow on earth. The Acme crushes, cuts, pulverizes, turns and levels all soils for all purposes. Made entirely of cast steel and wrought iron —indestructible.
Catalog and booklet. "An Ideal Harrow" by Henry Stewart sent free.
I deliver f. o. b. at New York, Chicago, Columbus, Louisville, Kansas City, Minneapolis, San Francisco, Portland, etc.
DUANE H. NASH, Sole Manufacturer, Millington, New Jersey.
BRANCH HOUSES: 110 W. Washington St., CHICAGO. 240-244 7th Ave. S., MINNEAPOLIS. 1316 W. 8th St., KANSAS CITY, MO. 218 10th St., LOUISVILLE, KY. Cor. Water and W. Cay Sts., COLUMBUS, OHIO.
PLEASE MENTION THIS PAPER.

Suggestions for March

MARCH is essentially a month for preparation, and as such we may well count it one of the most valuable seasons of the year; for upon thorough preparation depends, more than we may estimate, the results of the entire season. In many sections of the country to which The Strawberry already goes in large numbers the month will be one of great activity, in which the plow will be an important factor. How much depends upon the plowing of the soil just as it should be done! And you never should rush it through, for it takes time to put the soil in proper shape for the tender plants that are to draw from the earth and air and sky the elements that go to make up big crops of delicious berries

The soil should first be broken up to a depth of at least five inches; deeper if the depth of soil will permit. But never turn the subsoil up to the surface, no matter how shallow the top soil may be. Having turned over the soil with the plow, harrow thoroughly and fine the soil to as nearly the consistency of ashes as its nature will allow. You will find it much easier to get your soil in proper condition before the plants are set than after. If the soil be sandy, roll it firmly; but clay and other heavy, stiff soils should be pressed but lightly, and once over with the roller usually will do the work in the case of the heavier soils. In brief, get your soil into ideal condition before the plants are set, and you will find in this case, as in every other, that "well begun is half done."

How are your tools and implements? Do you keep them stored snug and safe from rain and snow, or are they left to the tender mercies of wind and weather? We hope that your mechanical helpers have been given good care and are in first-class shape for the work they must do. But whether they are cared for poor or ill, now is the time to see that they are in complete readiness for the first approach of spring. You may recall that there was a loose bolt in the cultivator that cost you lots of time and trouble last season, and the plow needed some repairs. Don't let the blacksmith get his shop filled up with others' work before you get there, and so lose many precious hours, perhaps days, of time. Get out tools and harness and every sort of contraption that contridutes to the working force of the farm and see to it that they are in the most perfect condition possible for the season's work.

CUT 1—A PERMANENT PACKING SHED

Many are thinking this month over the lively times they are sure to experience just as soon as the picking of the berries begin. We wonder how many of them are all ready for that eventful moment in the year's business. Have you a packing shed in which to handle the crop so that it shall be kept cool and where each box may be inspected before it goes to market to make or mar your reputation? If you have not such a shed, get to work at once to make one. Substantial or inexpensive, the shed is one of the big things in the strawberry business. Packing-shed No. 1 shown herewith is a permanent and valuable addition to the farm buildings, and serves other purposes throughout the year, but if you don't feel able to build one like it, or for any other reason prefer a less expensive affair, Packing-shed No. 2 will serve you well. Berries should be put under cover from the sun's rays just as soon after picking as possible, and they should be cooled off before marketing.

And another thing about picking time is the pickers themselves. Have you engaged your force for the season? If you haven't don't delay any longer; for if you do you may find it difficult to secure all the help you require to make and handle the big crop that's coming, or you may find that the other fellow has snapped up the best help in the community. And there is the other help on the place, help that you will want to be right on hand as soon as the wintry blasts have given way to gentle southerly breezes. Good help on a strawberry farm is as essential as in any line of business we know about, and you will find that the quality of your fruit, the way it is put on the market and the size of your profits will depend quite as much on the character of the men and women you have on the farm to do its work as would success in any other enterprise. One incompetent man, careless of his employer's interests, can do more damage in a day than ten men can repair in a week.

CUT 2 AN INEXPENSIVE PACKING SHED

OLE Groun'-hog he come outen his hole," as Uncle Remus would say, "an' see hisself and den go back ter sleep and ter snore fur six weeks mo'," which means, in terms of the weather, that we shall have a late spring. It is not pleasant to have Winter linger too fondly and too long in the lap o' Spring, but it has its advantages if warm weather do not come too quickly. It gives one more time to get his manure well scattered over the strawberry bed and get himself in complete readiness for the activities of the ripening season. Last season one might safely have uncovered his bed April 1 in many sections of the North; this year the work may be postponed from five to ten days later. Of that the individual grower must be the judge, as

he must be in many other things. The man who too rigidly follows rules in these matters will make a mistake. One must "feel" his way as it were, and learn, by developing a sort of sixth sense, the when and how and why of things.

The Family Strawberry Bed

ONLY a few years ago a strawberry bed rarely was seen in a family garden. Onions, radishes and all kinds of vegetables; raspberries blackberries, and all kinds of tree fruits were grown in abundance; but the family had to go hungry for the most delicious of all fruits.

Each year when the fruit and seed catalogues would arrive, and the annual seed order was being made out, the wife plead and the children begged for some strawberry plants. But there always was some excuse such as, "I don't know how to take care of them," or "the plants cost too much," or "I haven't time to bother with them," or "we can buy berries cheaper than we can grow them," or we can get plants from our neighbor's old bed.

In many cases the latter was done, the results of course being disappointment instead of big red berries. Those who promised to buy their supply of berries hadn't the money when berries were ripe or they didn't have time to go after them.

Whether the head of the house has run out of excuses, or whether his appetite got the best of him, we do not know, but anyhow things have changed. Today the strawberry bed in many gardens is receiving as much thought and care as vegetables. While driving through the country last summer we observed that the strawberry bed was found to have the most prominent place in most of the gardens, and the beautiful green, glossy foliage shining down the rows, presented a sight worth looking at.

Just who to give credit for this great change in the family garden from all onions and no strawberries to some onions and plenty of big red berries, is hard to decide, but from the way letters are signed that come to us asking for advice and instruction we judge that the "missus" is entitled to a big share of the credit.

Plenty of vegetables is all right and is just what every family should have, but all vegetables and no strawberries is all wrong. Like the Irishman who bought two gallons of whiskey and ten cents' worth of crackers. He was asked by his partner what on earth he intended to do with so many crackers!

Is there anything that goes to make a good meal richer and more delicious than a big heaping dish of freshly picked strawberries? Or one of those famous short cakes made by mother? And will the children ever forget such a home? We know they will not be like the boy who left his home to grow up with the West. While wandering down the street of a Montana town a big sign over the door of a restaurant attracted him. It read: "Coffee like your mother makes." The boy at once thought of home; walking into the restaurant he asked the waiter:

"Do you make coffee like my mother's?"

"Yes, sir; you bet we do!"

"Well, gimme a cup of tea!"

This boy's mother bought cheap roasted coffee and boiled it over two or three times. The same conditions result when strawberries are shipped in and lie around the store or commission houses until all their delicious flavor and fine point are gone.

Now don't be without your own strawberry bed. Make your plans right

A TYPICAL FAMILY STRAWBERRY BED

now; see to it that you order plants before they are all sold, and be sure you get the right kind—those that produce the big red fancy fellows. Then when your boy eats away from home he always will ask for short cake like mother makes, and your daughter of marriageable age can eat strawberries instead of onions and the whole family will be made happy—as well as some nice young man of some other family.

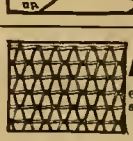
Where garden space is limited, and a separate place can not be given over exclusively to strawberries, we suggest that you mark the rows thirty inches apart for the strawberries and set the plants eighteen inches apart in the row. Then onions and radishes may be set between the strawberry rows and all may be cultivated with the hoe or hand cultivator. Of course, this refers to the first year only; the second year it would not do to plant anything else between the berry rows. They will require all the plant food and moisture that is in the soil. In preparing the ground for the family strawberry bed, scatter a light dressing of manure over it now, and in the spring, as soon as the ground may be worked, turn this under with spade or plow, and work up the manure and soil well together. Find out the number of plants required by counting the number of rows, taking their length and figuring that each plant will be set eighteen inches apart. And order the plants at once, if you would be sure to get the desired varieties.

The accompanying photo-engraving shows a beautiful family garden, and is the property of a bank clerk, who finds great delight in working in this patch out of business hours. It is needless to say that this gentleman and his family have all the big red strawberries, fresh from the vines, required for their own use.

C. W. GURNEY
NURSERYMAN
A large assortment of strictly home-grown stock. Wholesale and retail. . . . . .
Yankton, S. D.
SEND FOR CATALOGUE

A beautiful colored plate of our
New Eaton
Red Raspberry
and our strawberry catalog of valuable information about varieties with instructions for beginners. Free to all.
THE FLANSBURGH & POTTER CO.,
Leslie, Michigan.

Trees, Plants & Seeds
THAT GROW
Best quality. Good bearers. Low prices. Apple 4c; Plum and Cherry 12c; Peach 4c; all budded; Concord Grapes 2c; Forest Tree Seed. Tested seeds very cheap. Freight paid on trees. Catalogue, English or German, free. Write for it today. Address
GERMAN NURSERIES,
Box 101 Beatrice, Neb.
GERMAN NURSERIES
Carl Sonderegger, Prop.
Hugs $1 a 1000



FENCE STRONGEST MADE. Bull-strong chicken-tight. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalog free
COILED SPRING FENCE CO.,
Box 162, Winchester, Indiana.

Evergreens

that are hardy in your soil and climate. You can have a perfect wind-break, grove, hedge or screen of hardy evergreens at a very low cost; also forest trees, etc., all nursery grown. I offer
50 GREAT BARGAIN LOTS AT $1 TO $10 PER 100
freight prepaid to your station. My catalog tells my own experience in planting a five-acre grove on the bleak prairies of Minnesota, that is now worth $5,000. Don't miss this chance—send for my free catalogue and bargain sheet today.
D. HILL, EVERGREEN SPECIALIST, DUNDEE, ILL.

We never have known anybody, after having started a family strawberry bed, to give it up and be content without it; they were willing to forego almost anything else, but the strawberry bed was maintained.

⚜ ⚜

THE manure spreader is not only a time saver and a fertility saver; it positively adds to the cash value of every bushel of manure put upon the ground through its mechanism. On this subject one of our most distinguished authorities has said: "The manure spreader has solved many of the difficulties connected with direct hauling to the field. A light application of manure at frequent intervals is more advantageous than heavy applications unevenly spread and at long intervals. The unfavorable results which some farmers have experienced from the direct application of manure could have been largely avoided if it had been used in smaller amounts and evenly spread with a spreader, instead of being applied unevenly and in large amounts. During recent years but few complaints have been heard of manure causing the land to dry out and getting it out of mechanical condition, and the western farmer is beginning to appreciate more and more the value of farm manure, and the present improved means of applying it."

⚜ ⚜

The Sentiency of Plants

SCIENCE is making rapid strides these days and in consequence the world is coming to know itself better than ever before. When we recall that our ancestors of only a few generations ago believed the world was square, with the jumping-off place just beyond the limits of vision, we may gather some idea of the progress the world has made as a result of the investigations of scientific men. One thing that has been accomplished is the development of a larger conception of the things about us and the importance of many once deemed so common and so far beneath us as to merit no consideration whatever. We know more about germs and bacilli and microbes today than was dreamed possible even a quarter of a century ago, and much as we fear some of them we have come to have a more wholesome respect for these minute but powerful influences in the world, knowing as we do that they are essential to health and to life itself.

But man has given little attention to plant life save as a source of subsistence and support. That the three kingdoms of nature were very closely related we have had some inkling, but never have we thought much on the subject. But recently science has told us that there are points of contact where the animal, the vegetable and mineral kingdoms are quite indistinguishable one from the other, and that away back in things primal the origin of all three was the same, and that all three are related by the closest ties. No modern student but recognizes that man himself is a growth out of lower orders and that he is still sloughing off the coarser materiality and rising ever to loftier heights of civilization. So we have become accustomed to learning new things about ourselves and about animals and plants without doubt and without fear; in fact, we are coming to welcome everything that points to growth and ultimate perfection.

Horticulturists will find, for instance, in a recent statement of Dr. Henry S. Conrad of the botanical department of Johns Hopkins University, matter of universal interest. All know about the sensitive plant—how when the horseman approaches from afar it will close up as if to shrink from sight. And of the carnivorous plants that beguile insects into their lips only to close over them like some beast of prey and devour them. But Dr. Conrad attributes to plant senses quite as well defined as are those observed in animals. He says that plants see, feel and taste, although he never has found evidence that they can hear. Dr. Conrad made this statement while discussing the theory of Dr. Haberlandt of of the University of Gantz, that in the

Use this American Manure Spreader

A MONTH FREE

TO PROVE ALL THE CLAIMS WE MAKE FOR IT

WE sell *direct to you.*

We sell direct to you *because* we are able to give you much better value for your money than we otherwise could, and a better understanding of your machine than any one else could. We always keep in close touch with our customers. They tell us what our Spreaders are doing. Sometimes they surprise even us.

We find out just what it means to countless farmers to own a Manure Spreader that will double the value of every bit of manure put on their land.

The American Manure Spreader will do this because it breaks up and pulverizes all the manure so that it mixes readily with the soil. It distributes evenly. Every square foot of land gets its share. This means a good crop all over the field. You don't find any "*skinned*" places in a field manured with the American Spreader.

But we don't ask you to take any hearsay evidence.

We want you to *find out for yourself* what our Manure Spreader will do.

So we make you this remarkable offer. We will send you one of our Spreaders *on trial* and *prepay the freight.*

Use it a month on your own farm.

If you find it exactly as we have represented, after the month's free trial, you can settle for the machine on terms convenient for you.

But, if the American Manure Spreader is not what we claim, send it back *at our expense.* You don't owe us anything. The trial don't cost you a penny. The month's use you have had of the Spreader is **FREE.**

Could we do more to *prove* to you that the American Manure Spreader is what we say? Would we dare to make such an offer if we didn't know what our Spreader will do? Remember—when you deal with us, you are doing business with an independent concern.

We do not belong to any Trust or Combination.

And by our plan of making and selling *direct,* you get a dollars' worth of Manure Spreader for every dollar you pay.

You see we make more Manure Spreaders than any other concern in the world.

We own and operate the largest factory ever built for this purpose.

It is equipped with every modern labor-saving device. All our machinery is up-to-date—the very "latest improved".

This means the best possible machines at the lowest possible cost.

The American Manure Spreader is today an example of the very highest development in modern agricultural implements.

It is absolutely up-to-date.

The principles upon which it is constructed are *sensible and practical.*

There are no complicated parts to get out of order. It is simple, and carefully constructed.

And you take as much time as you require to pay for the Spreader after you have used it **A MONTH FREE.**

The Spreader may earn its own cost, before you send us a shilling.

Will you be as fair with us as we are willing to be with you?

Will you send for information of our generous proposition today?

Even though you do not wish to buy now, send for particulars.

Some day you may wish to buy, and then knowledge of our New Selling Plan will come in handy. You will know *how to save money.*

If you will tell us how much land you own, and how many horses, cattle, sheep and hogs you keep, we will give you the Government statistics as to the value of your manure crop.

Write to us today. Put down this paper and write before the matter has a chance to slip your memory.

Address at once—

AMERICAN HARROW CO., 4533 Hastings St. Detroit, Mich.

leaves of plants and trees are organs that resemble the eyes of animals.

Dr. Conrad for some time has been making studies in this line. In one laboratory the work was being done upon the power of plants to see. There were placed in the window a number of plants of the bean family, which are the best local examples of this strange perception in the vegetable kingdom. Those of the plants which were in the full blaze of the sun had the edges of the leaves turned toward the sun, so as to escape too great an amount of sunlight. Those that were in the shade turned their leaves back close to the stem. In the morning at the first appearance of light they began to resume their natural position, and by sun-up they were fully extended.

In another laboratory Dr. Conrad had some flat beans planted in moss which had put out long roots. One of the roots was pulled from the moss and the end of it cut off. The cells became displaced and the injured root behaved exactly as the limb of an animal would when injured.

The sundew, a plant which grows in the swamps about Baltimore, probably shows the sense of taste to a greater extent than any other.

"With a single exception," says Dr. Conrad, "they can recognize light and the direction from which it comes; they feel the slightest wound, they discriminate in taste, they have a sense of direction whether they are turned in the right direction or not, and are influenced by electric currents passing near them."

One Beginner's Experience

By W. H. Rogers

I AM only a beginner in strawberry growing, last year being my first crop. I do not think I have had large success as yet, but I intend to keep at it until I do. In the spring of 1904 I bought 3,000 thoroughbred pedigree plants, from which I picked 2,240 baskets of berries in 1905, and I think, had the season been favorable, I should have had double that quantity. We had continuous rains and muggy weather for more than a week at the height of the season, and the berries rotted on the vines instead of ripening.

Just when the first berries were ripening a berry grower came to my place and after looking it over declared it was the finest prospect for a big crop he ever saw, and he had been in the business for ten years. I counted 223 berries on a single plant at one time, but a great many of them fell off before they got ripe because of the bad weather.

My plot last year was eight rods wide by eleven rods long. On this I spread twenty-five two-horse wagon loads of manure before setting out the plants and scattered eight hundred pounds of commercial fertilizer. I follow the hedgerow system of cultivation, with rows three feet apart. I found that Tennessee Prolific, Warfield and Kansas gave best yield, Michel's Early grew immense vines, but did not yield many berries. I sold direct to consumers and gave good satisfaction, quite a number requesting me to be sure to call again next season.

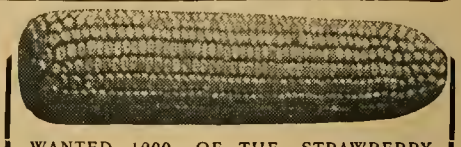
This year I shall have eleven by seventeen rods in my patch. The vines are looking fine, and I hope for better results this year than last. I have seventeen varieties to fruit this year. I am experimenting, and when I find out what suits my soil and trade best, I intend to make strawberry growing my whole business. At some future time, after I get some experience, I may be able to write you something of interest to strawberry growers.

I mulch my berries, using buckwheat straw, which I can buy cheaper than other straw, and I find it lays on better. We have had no snow here yet this winter and very little frost. From my experience last winter I consider it best to mulch early—as soon as the ground begins to freeze at all hard.

I was delighted when I learned that you intended publishing The Strawberry, and now that I have seen the initial number I am more than ever pleased. I think it is just what strawberry growers need.

Cobourg, Ont., Jan. 30, 1906.

Our correspondent certainly has every reason to be proud of his success, considering the conditions under which his crop was matured, and with the knowledge that experience brings to the intelligent and observing grower, he is sure to become a leader in his work. We are very sure that already he has had many interesting and suggestive things to tell Strawberry readers. Regarding the heavy foliage and small fruit yield of the Michel's Early: It is the nature of that variety to develop heavy vegetative growth if overstimulated, and the amount of manure and commercial fertilizer used by Mr. Rogers was excessive for that variety. It is in just such cases that the judgment of the grower must come into play, and when he observes that one variety does well, while another does poorly, under certain conditions, he may at once understand that the two are of different habits of growth and require different treatment. Michel's Early should not have been given such superabundance of plant food; the other varieties named thrived under its influence. However, having the plant food in the soil, had our correspondent ceased cultivating the Michel earlier than he did in the case of the other varieties, he would have greatly aided the fruiting power of the Michel. The particular attention given to individual varieties—the knowing of the nature of the several varieties and how to meet their peculiar requirements—constitutes an important element in sucessful strawberry production.—Editor The Strawberry.



WANTED---1000 OF THE STRAWBERRY GROWERS TO TEST

DOERR'S YELLOW DENT CORN

In 1906. Originated by us in 1902. Stands without a successful rival in the corn belt today. We start you with four pounds seed, delivered at your door by U. S. mail for $1.00. **Enough to grow 25 to 40 bushels.** Why not test it? We are in earnest in the matter, and give you the HARVEL BANK as reference as to our reliability.

A. T. DOERR & SON, - - - HARVEL, ILLINOIS

Large circular FREE. Write for it

The Best Fruit Paper

is The Fruit-Grower, published monthly at St. Joseph, Mo. The regular subscription price is a dollar a year but if you will write for free sample copy and mention this paper, you will receive a proposition whereby you may secure it one year WITHOUT COST. Every one who has a few fruit trees or a garden, should read

THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

Every issue is handsomely illustrated and from 32 to 64 pages a month are filled with interesting matter pertaining to fruit-growing and gardening. The first four issues of 1906 will be handsome special numbers devoted to the following subjects:—January, The Horticultural Societies; February, Spraying; March, Gardening; April, Small Fruits. Any one of these numbers will be worth a dollar to you. We publish the "Brother Jonathan Series" of fruit books. Send your name and learn how to secure these books free.

TRADE MARK
BRO. JONATHAN

Fruit-Grower Co. 167 S. 7th, St. Joseph, Mo.

Tree Protectors

75 cents per 100.
$5.00 per 1,000.

AS valuable in summer against sun-scald, hot winds, etc., as they are in winter against cold and rabbits. Recommended by all leading Orchardists and Horticultural societies. Send for samples and testimonials. Do not wait until rabbits and mice ruin your trees. **Write us today.**

Wholesale Nursery Catalogue now ready. Send for copy. Agents wanted everywhere.

HART PIONEER NURSERIES,
Box 103. Fort Scott, Kan.

OUR PLANTS, ROSES,

Seeds, Shrubs, FRUIT AND ORNAMENTAL TREES have been the standard of excellence for over half a century. You take no chances in buying of us as no fairer prices are quoted on high quality goods. The best are always most satisfactory in results. We mail postpaid Seeds, Roses, Plants, Bulbs, Vines, Etc., and guarantee safe arrival and satisfaction, larger by express or freight. You will be interested in our extraordinary cheap offers of over half a hundred choice collections of Seeds, Plants, Roses, Etc. Your address on a postal will bring you our elegant 168-page Catalogue FREE. Send for it today and see what values we give for a little money. 52 years. 44 greenhouses, 1200 acres.

THE STORRS & HARRISON CO.,
Box 261, PAINESVILLE, OHIO.

850,000 GRAPE VINES

69 Varieties. Also Small Fruits, Trees, &c. Best rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. LEWIS ROESCH, FREDONIA, N.Y.

PREPARING THE SOIL FOR THE PLANTS ON THE FARM HOME OF THE STRAWBERRY

Put your soil in ideal condition before setting plants. The better it is mixed and the finer your soil the quicker your plants will start growing. It does not pay to set plants on poorly prepared land.

Winning Success With the Strawberry

By Harry L. Donaldson

FOR one practically to lay down the work of a lifetime, give up the trade, for the most part, that has been his support, and launch out upon a new line of endeavor, minus capital and possessed of rather a limited knowledge of the work before him, is not a pleasing step to contemplate nor an easy task for any man. Yet in these days of rapidly changing industrial and commercial conditions, individuals frequently find it necessary to make some new move or remain forever in a second-rate position in the world, if they do not actually go to the wall.

A cooper by trade, the influence of modern machinery and methods in handling the products of that industry has made the individual cooper a back number in the industrial world, and the income from the local cooper shop pitifully meagre. Having grown strawberries in a small way, and knowing something of the nature of the plant and the treatment it should receive, I started out with the determination to transfer my efforts to the development of a business along that line, confident that it opened a steadily broadening field of operations. And after three years of experience I am more than ever convinced that this is true.

How to get the necessary capital with which to secure plants, get possession of the land required and support my family while the strawberries were coming into bearing was a problem. I solved it by going to one of the leading attorneys in town and laying before him the situation and my plans. He agreed with me that there was a field right here for such an enterprise, and said he would stand behind it. Accordingly a four-acre tract of land was secured, and I went to work.

I knew enough about strawberries to be very sure that "poor plants make a bad crop," and in addition to getting my land in perfect tilth, I bought the very best plants I could find, though the price was considerably more than I might have secured others for. My experience fully justified my judgment in this regard, and my advice to strawberry growers everywhere is to get the best, for the best plants will pay their extra cost a hundred

HARRY L. DONALDSON

times over the first year, while putting before your customers the kind of berries such plants grow is no small factor in building up a permanent trade.

I do not know how common plants act under the same conditions, for I never have tried them, but I have found that the high-grade selected plants respond immediately to the best attention one can give them. Plenty of plant food, thorough cultivation to keep down weeds and conserve soil moisture, and a wise handling of runners—these are the great points to be considered in the growing of the strawberries that in quality and quantity make profits for the grower and give satisfaction and pleasure to everyone who takes pride in his vocation.

We began three years ago and those four acres have done so well in a financial way that the firm now has bought a fine farm of 137 acres, and will this season begin the work of raising strawberries on an extended scale, although we still continue to work the four-acre tract. We also shall grow tree fruits. While the success that has attended our work here had its foundation in good soil, good plants and proper cultural methods, the commercial side of the business has been a prominent factor in whatever we have achieved.

And as a first step to success on the commercial side of the business, I place the careful and systematic grading of the fruit. I started out by calling my product "Donaldson's Select Berries," for I believe that the grower should seek to make his name known and respected in the business world because of the character of his output. These berries are selected by the most careful methods, first by employing the most skillful and faithful pickers, and then by rigid inspection at the packing shed. When a box of berries leaves the farm I know that the buyer will find high-grade, large and luscious berries at the bottom and in the middle as well as on top of the box. I believe that any other way of packing berries is deceptive, and I want to be as careful that no one is deceived by the goods I sell him as I am to see that nobody else deceives me.

When the mistress of the household has had my berries a few times I am entirely confident that when she goes to the

'phone and calls up her grocer she will ask for "Donaldson's Select Berries" as against any others, even though my price may be somewhat above the market. And I take untold satisfaction, on the other hand, in her serene confidence that she is to get the very best berries that can be had.

Heretofore I have not used a label on my berries, but now I am having a large and handsome label struck off which will go on every crate of berries I sell. I am sure that it will prove a great aid in building up steady custom. Just as the name of some popular article, made popular by its merits, when it appears upon the covering of the article is a guarantee of what is inside, so I think every grower who is producing a high-grade strawberry should have his fruit labeled and make that label a guarantee of excellence. There is one apple grower in this state whose mark on each barrel of apples is worth $1 to him. By years of honest picking and packing, his apples have become to be worth on the market a dollar more than any others, and commission men are eager to pay him that advance over market prices and secure his entire output. What is true of Mr. Wynne's apples may be made just as true of our strawberries—if we make them come up to the right standard.

One thing I would like to say to my fellow men who are in doubt as to whether he shall stick by the old trade that has become, or is becoming, out of date in the swift advance of industrial methods, or whether he shall break away and go into something that may make him more independent of the wage question, and that is, don't be too hasty to change, on the one side; but above all things else, don't be afraid to make the change, if the pressure is heavy. Good old-fashioned "gumption" is one of the essentials in strawberry production, and if you have that, you'll succeed in this most fascinating work. And if you haven't capital, but are possessed of a good name, a way will be opened up to you if you are in dead earnest. Remember that the demand for high-grade strawberries steadily is increasing everywhere, and a market may be built up at home or in your nearest city or in the distant metropolis that will consume all of the really good fruit that may be grown. My observation has been that there never is a glut of first-class fruit. I am quite certain that others may do quite as well as I have done. Certainly few could start with less than I was obliged to do.

Pekin, Ill.

STRAWBERRY-GROWERS and truckmen all the country over were glad to know that the Hepburn railway-rate bill passed the lower house of Congress by an almost unanimous vote—346 to seven—Democrats vieing with Repub-

Strawberries

IF YOU believe the plants you plant cut any figure in the results; if you think think the best is none too good for you, and cheapest in the end, and if you want to be sure of getting the variety you buy, in a condition to make the most for you, I ask you to investigate

THE PLANTS I GROW

I don't claim to sell you plants cheaper than anybody else. I am not competing with the man whose stock has nothing but cheapness to recommend it, and it is not to your interest to buy that kind. My claim is that I am producing the best, strongest, most vigorous and most prolific plants that can be grown in a favored strawberry climate and that I am selling them at a reasonable price.

ONE HUNDRED VARIETIES

About every kind that has ever proved its right to be grown in any locality. Of course I especially recommend the well known varieties that are standard everywhere, among them being **Virginia, Chesapeake, Cardinal, Commonwealth, North Shore, Oaks Early, New York, Glen Mary, Stephen's Champion, etc.** But select your own varieties and I will send plants to please you.

MY 60-PAGE CATALOGUE

Is free and gives all particulars. Also lists leading varieties in **Cabbage, Cantaloupe, Tomatoes, Field Corn, etc.** Tested novelties and Standard Garden, Field and Agricultural Implements. Don't fail to write for a copy.

W. F. ALLEN, Dept. 58 SALISBURY, Md.

SCARFFS LUSCIOUS NEW FRUITS

Money making varieties for every fruit grower. They are free from disease, sturdy, strong growers. Thousands of our customers are making big profits buying our plants. Everyone true to name. No disappointment. Any intelligent planter can make

$300 Profit per Acre

I grow millions of plants. My experience covers over 14 years of practical experience raising nursery stock of leading varieties and I speak with assurance. MY HANDSOME NEW CATALOG overflows with practical information valuable to every fruit grower. Send for it before you buy. It tells all about my high grade stock of fruit and ornamental trees, farm and garden seeds: and general nursery stock. Write today.

W. N. SCARFF, New Carlisle, Ohio.

TWELVE EVERGREENS FREE

We grow our HARDY "BLIZZARD BELT" EVERGREENS by the million. They are healthy, well rooted, vigorous. To prove it, we offer 12 choice spruces and pines 2 years old, entirely free to property owners reading this advertisement. Mailing expense 5c, which send or not as you please. A postal will bring them. Our CATALOGUE, containing 42 colored plates of our HARDY "BLIZZARD BELT" Fruits, Evergreens, Ornamentals, etc., with a mine of valuable information for fruit growers, free for the asking. Write to-day. This offer may be withdrawn later on.

THE GARDNER NURSERY COMPANY, BOX 802, OSAGE, IOWA

licans in their interest in this universally popular measure. Not a vote against it was recorded by members coming from west of the Alleghanies or south of the Ohio. Now the matter is in the hands of the senate, the leaders of which are well known to be opposed to the provisions of this measure. What will they do with it? That they will dare to vote against the bill in toto is not believed. It is said, however, that they will present a "joker" in the form of an amendment that will kill the measure, so far as its practical effectiveness is concerned. The growing intelligence of the people, and the unusual popular interest attaching to this particular measure, lead all to hope that the senate will think better of it and vote for the bill as it has passed the house.

Bees and Strawberries

By Stephen N. Green

EVERY strawberry-grower recognizes the supreme importance of the proper fertilization of the strawberry flower as a first step to a good crop. But very few ever give enough attention as to how this is accomplished. They trust this part to nature; but in these days of intensive cultivation it pays to study nature, to learn her ways, and to conform to them or assist them. It is all the more necessary to understand this matter on account of the imperfect flower in the strawberry, which has been developed by persistent selection in a certain direction.

You are familiar with the strawberry flower in a general way; but let us give it a closer examination, especially in its relation to the bee. First will be noticed the white petals which serve to attract the bee. At the base of these are the anthers, which bear the pollen, these being absent, of course, in imperfect flowers. Near the base of the anthers may be seen, under favorable circumstances, tiny drops of glistening nectar which, together with the pollen, is what the bees seek. Next is the core, or torus. Upon the proper development of this depends the entire crop. Upon the torus are the achenia, or seeds. Upon the achenia will be noticed the stigmas, which, when withered, are so noticeable in canned strawberries.

The bee, seeing the white flower, alights upon the only solid resting-place, the achenia, and from that position gathers the nectar and pollen. Turning in these operations she is liberally sprinkled with pollen, which adheres to her legs and body. Flying to the next flower she repeats the operation and, too, disposes of some of the pollen attached to her upon the waiting stigmas of the seeds.

If the achenium is not fertilized there is no development of the torus at that point, but it remains shrunken, green and hard, thus resulting in the small knotty

See that RIM?

It is the Rim that counts, that makes the Wax-Lined Paper Berry Baskets different from all others; that makes it attractive, that makes it *Strong*

We recently received the following letter from a prominent fruit grower in West Virginia:

"The sample baskets were received in good condition, and I did as you requested, placing one of the baskets in a pail of water over night, and to my surprise it stood the test all right. I will send in my order in the spring, and will recommend them to others."

This testimonial was unsolicited and speaks for itself.

Let us send you a trial lot for this season, and next season you will order your entire supply from us.

Sample and Catalogue Free

MULLEN BROS. PAPER CO.,

Dept. B. ST. JOSEPH, MICH.

oerries which are the rule when unfavorable weather occurs during the flowering season. It is true that other insects visit the strawberry flower, and, too, that the wind may carry the pollen to a limited extent; but undoubtedly the bee is by far the most important factor, and the only one under man's control, hence the attention it should be given.

It is to be regretted that the strawberry is rated very low as a honey-producer, and that the bee fails to visit it when other pasturage is available, much to the loss of the strawberry-grower. However, fortunately, it generally blossoms when there is a dearth of honey and pollen, and the bee is present, providing the weather is favorable to its flight. The raspberry is an excellent honey-producer, and one rarely sees it fail to produce fruit fully fertilized. Perhaps when this question is fully realized something will be done to breed the strawberry up to a better nectar-producer.

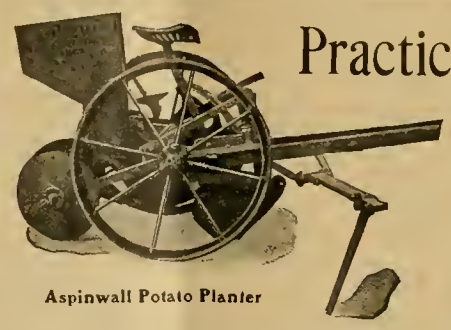
There is an English maxim which runs, "The money thrown out of the window in encouraging apiculture will come back through the door with heavy interest." This is untrue today only in the point that no more need be thrown away in encouraging modern apiculture. Bee culture to-day is a very profitable business, when conducted right, considering only the honey produced. Yet by far the greatest work of the honey-bee is the fertilization of flowers. The bee is a double-dividend earner to the fruit-grower. In the near future no fruitman will neglect this question more than he does today spraying or cultivation.

Bees are not expensive. The first expenditure is the greatest, and this may be reduced to a very reasonable figure. Buy a few stocks of common bees near you; and if they are not in modern hives, transfer them and change the queens to the Italian variety, for they are the best in all ways. Besides this all you will need is a bee-smoker, veil and gloves. A good bee book is a necessity, and a bee paper a great aid. But the cost need not exceed $5 a colony. Additional supplies you may invest in as you desire. This first investment can be repaid the first season under intelligent management. Bees increase rapidly, and the increase as well as the honey is always salable.

Ten to one hundred colonies can be kept at a profit in almost any locality. In general the smaller the number the greater profit per colony. It is rarely advisable for a novice to invest in many colonies at first; better begin small; and as experience and knowledge of one's locality increases, enlarge your apiary.

Better look up this question, Mr. Strawberry Grower. Write any manufacturer of bee-keeper supplies, and he will gladly send you a liberal supply of printed matter from which you can glean much information.

Medina, Ohio.



Aspinwall Potato Planter

Practical Potato Growers

Increase Their Profits

BY USING

Aspinwall Potato Machinery

WE have been making potato machinery for over twenty-five years, and thousands of satisfied customers in all parts of the world are using our machines to their profit and advantage. If you are engaged in raising potatoes for market it will pay you to own an outfit of our time and labor-saving tools.

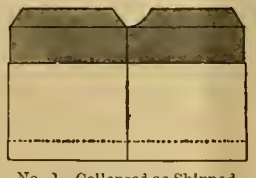
CUTTERS
PLANTERS
SPRAYERS
DIGGERS
SORTERS

Aspinwall Four-Row Sprayer

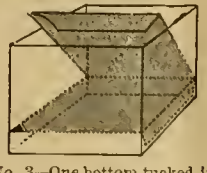
The Machine Par-Excellent for Spraying
POTATOES, STRAWBERRIES, CABBAGE, MELONS, TOMATOES, AND SIMILAR CROPS

Our Free Catalogue is full of information for potato growers. Write for it.

Aspinwall Mfg. Co., 121 Sabin St., Jackson, Mich., U. S. A.



No. 1—Collapsed as Shipped



No. 3—One bottom tucked in place. Second ready for tucking

NEW "INVINCIBLE"

ONE PIECE

Waxed Paper Collapsible

(Patent applied for)

BERRY BOX

No Nailing No Wiring No Splitting
No Waste No Mildew No Trouble

ONE HUNDRED SET UP A MINUTE

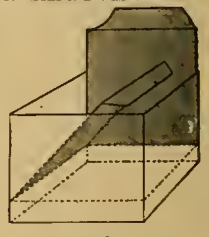
Hallock Sizes. Fit Hallock Crates

SEND FOR SAMPLE

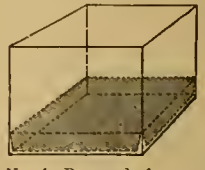
KATZ & LULL

185 Milwaukee Street

Milwaukee, - - - Wisconsin



No. 2—Squared up, ready for tucking in



No. 4—Box ready for use

The Lou Dillon Tandem Garden Cultivator

Suits the practical gardener because it cultivates either between or astride the rows, and he goes along at an easy, continuous walk. One simple movement without the use of wrench or tool of any kind makes it possible to always furrow the soil at just the desired depth. You must not put this cultivator on a par with the common hit and miss garden cultivator. It works so easily and accurately that it is the greatest help to amateur gardeners, women, truck farmers, and, in fact, anyone who wants to save time and do good accurate work.

The Lou Dillon cultivator works as easily as a lawn mower. It is in fact, the only garden cultivator that is practical for a woman or child, as it is the only one made that they can push.

We will take the cultivator back and give back your money if it don't do your work better and in less time than any garden cultivator you ever used.

Write for free descriptive catalogue and prices.

Schaible Manufacturing Co.,
Albion, Michigan.

20th Century Combination

A wagon box, stock rack and hay ladders combined. Can haul loose hay or straw, all kinds of live stock ear corn, threshed wheat or oats, apples, potatoes, etc. Good for every use on the farm without removal of parts. **All Changes Made Instantly.** Catalog Free

MODEL M'F'G. CO.,
Box 52 , Muncie, Ind

Work of the Horticultural Societies

ONE of the influences of far-reaching power that are working for the uplift and advance of horticulture is to be found in the horticultural societies of the several states. These societies themselves steadily are taking higher ground. They are attracting, by their scientific and practical work, the men and women of the country who are doing things in a horticultural way, and these in turn, by that fine interplay of cause and effect under which effect becomes another cause, gives to the societies new inspiration and strength and wider and deeper influence.

In another place in this issue we refer to the work going forward in the Minnesota society—a society, by the way, which has done more than ever may be fully understood to develop the resources of that state, once held to be out of the zone of fruit production. That its work is but fairly begun, and that new and undreamed triumphs are before it, none who knows the nature of the men who are behind it doubts.

The growing importance of the strawberry may be seen in the increased attention being given it by the state societies. In the Kansas meeting recently held "The Ideal Strawberry" was the theme of a paper that evoked generous discussion. The author, Mr. Dixon, said that some of the varieties now in cultivation seem almost ideal, yet there is none but could be improved in some respect, either as a fruit or plant. Much depends upon one's location and the weather conditions as to the behavior of different varieties. Mr. Dixon's remark that he used prairie hay as a mulch and believed it the best to be had, aroused some discussion, one member declaring that he had used it, but found the grass seed it contained against it; his prairie hay mulch had seeded his strawberry patch to prairie grass. This experience suggests the danger of using anything in the strawberry patch that contains many seeds.

Another member said that he had experimented with various things for mulching and believes that coarse stable manure is about the best, but one must see to it that prairie hay is fed to the animals and rye straw is not used for bedding. Where timothy hay or red clover is fed, or where rye straw is used for bedding, the manure should be avoided in a strawberry patch. Someone asked how it would do to allow crab grass to grow late in the season, to furnish a mulch, but Mr. McNallie said that this plan will not do at all. Crab grass in a strawberry bed is a dangerous thing, and one who wants good crops will keep his plants clean and apply mulch material afterward; don't depend upon Nature to grow a mulch over your plants.

Asked to give his plan for renewing strawberry beds after fruiting, one experienced grower said that as soon as the last picking is made the plants should be mowed; rake off the tops and cut down the width of the rows. To do this remove some of the discs from a disc harrow, and narrow the rows to eight or ten inches width; then harrow across the rows, and cultivate well throughout the season. Handled in this way, strawberry beds can be kept for four or five crops, provided the soil is good and the work is well done.

"Would you then plant strawberries on this land again?" was asked. "If not, how long would you allow between crops?"

"I certainly would not plant strawberries again on this soil, and would wait about five years between the crops. We have tried to put strawberries on the same soil within shorter time, but never have had good success. We even have tried the use of commercial fertilizers, to replace the elements removed by the strawberry crops, but could not succeed. Other crops may follow strawberries to advantage, but I should allow at least five years between two plantings of strawberries."

MISSOURI strawberry folk are a growing circle of broad-guage people, and the recent meeting of the state society was unusually interesting as to this element in the program. Mr. R. F. George of Pierce City, read a strong paper on the subject, in which he said he preferred moderately rich, gravelly soil, sloping east or southeast. This slope especially for Aroma. Plow ground in late fall or early winter and plant early in the spring so as to get a good stand of plants. Soil should be worked fine and well packed so it will settle close to the plant and not dry out. Cultivation begins soon after planting, going close to the plants at first, afterwards farther away as row is formed, and keep up the cultivation till frost stops growth. Three fruiting seasons is usually the limit for one planting, and an acre should produce from 150 to 300 crates.

When it is known that in 1905 there were 1100 carloads of strawberries shipped from that great berry district which includes portions of southern Missouri and northern Arkansas, from which the net returns were $640,000, and that this vast quantity must be marketed within a very brief space of time, it will be understood how great was the interest in the paper read by G. T. Tippin on "How to Pick and Handle Strawberries." Mr. Tippin said that for distance shipments in car lots most varieties should be at least

Important Word From Secretary Hays

DURING a recent visit to Washington a representative of The Strawberry called upon Assistant Secretary Hays of the Department of Agriculture and discussed with that official the lack of statistical information concerning strawberry production in the United States, and the unscientific methods now followed in marketing the crop, every year becoming more vast and more valuable. A few days later we received from Secretary Hays the following:

"In the past year the Department of Agriculture has been investigating the entire subject of agricultural statistics, both the American system and the organizations of this kind in Europe. Plans are rapidly being made in the development of improved methods for gathering statistics in each state and for assembling these into national figures showing the acreage, condition, production, etc., of non-perishable crops, as wheat, cotton, flax, etc.

"With the organization of state agencies, the securing of statistics of such perishable products as strawberries, apples, vegetables, etc., will be made much easier and more practicable than in the past. Just how the statistical organization can be extended so as to be helpful to the producers, market interests and consumers of such perishable products as strawberries, has not yet been fully worked out. If the energies and expenses of producers, dealers and transportation companies now employed to distribute the products in the best manner among the various markets could be merged, possibly under the leadership of the Government bureau, it might be that a system of daily telegrams in the busy season could be made very useful and with but little added expense.

"The Department is open to suggestions along this line, and expects to do some experimenting to see if these various agencies cannot be so merged as to make feasible a general plan of statistics of perishable products."

With the assurance in advance of Mr. Hays' powerful aid, and having in addition the knowledge that Secretary Wilson is thoroughly interested in the matter, the time appears to be ripe for a movement all along the line having for its object the initiation of such a work as is here proposed. There is no doubt if the people interested in commercial strawberry production were to ask Congress to appropriate the necessary sum to carry forward such a work as Secretary Hays suggests in this note to The Strawberry, the response would be immediate and generous. How great the results of such a work might be is past estimate. May we not hear from every man and woman who markets strawberries or truck of any kind, expressing willingness to cooperate with Secretary Hays in getting this desirable undertaking under way?

O.K. Chase.
St. Louis, Mo.

I Am the Paint Man

2 Full Gallons Free to Try—6 Months Time to Pay

You Pay No Freight to Try My Paint.

I AM the paint man.

I have a *new* way of manufacturing and selling paints. It's unique—*it's better.*

Before my plan was invented paint was sold in two ways — either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The mineral in ready-mixed paint, when standing in oil, eats the life out of the oil. The *oil* is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

I ship my pigment—which is white lead, zinc, drier and coloring matter freshly ground, after order is received—in separate cans, and in another can I ship my Oilo, which is *pure old process* linseed oil, the kind that you used to buy years ago before the paint manufacturers, to cheapen the cost of paint, worked in adulterations.

I sell my paint direct from my factory to user at my very low factory price; you pay no dealer or middleman profits.

I pay the freight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use *two full gallons*—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, *you can return* the remainder of your order and the two gallons will not cost you one *penny.*

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on *six months' time,* if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

NOTE—My 8 Year Guarantee backed by $50,000 Bond

Back of my paint stands my Eight Year, officially signed iron-clad Guarantee.

This is the longest and most liberal guarantee ever put on a paint.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo.

I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8 year guarantee.

O.K. Chase *The Paint Man.*

7058 Olive Street,
St. Louis, Mo.

three-fourths colored, with pink showing on the greener side. For home market they should remain on the vines one day longer. After the first three or four days in the beginning of the season the field needs picking every day. Choose the cool of the morning, before berries are heated by the sun, as they will soon dry out.

A general discussion on varieties showed that Aroma, Haverland, Warfield, Senator Dunlap and Texas were the leading favorites in Missouri. The Haverland was planted over a larger territory, perhaps, than any other.

COMMERCIAL strawberry growing is becoming year by year an industry of large importance in Illinois, especially in the southern portion of the state where the crop matures early and is in the market directly on the heels of those that come from down in Dixie. At the Illinois State Horticultural Society meeting E. C. Persels of the little city of Farina, himself an extensive grower, read a paper on the strawberry as a commercial crop. As Farina shipped eighty-eight carloads of berries last year, and Mr. Persels was a large contributor to these shipments, his right to speak on the subject with authority may not be questioned.

Mr. Persels said he planted every fourth row, at least, of staminate sorts, and usually plants two of the staminate rows together. Asked if it were not better to have staminate sorts which bloom a little later than pistillate varieties, so that the last blooms of the latter will be fertilized, he said he tried to have some of the staminate rows blossom before the pistillate varieties, and some of them afterwards. If this can be arranged, the early and late blooms of the pistillate sorts will be properly fertilized. Pistillate varieties are much more prolific, as a rule, than staminate sorts—in fact, he counts on about double the yield from the pistillate varieties, as the staminate sorts do not hold up until the last of the season.

"Has anyone ever tried growing oats between strawberry rows, to act as a mulch?"

"Yes, and the plan does not work; looks all right in theory, but will not pan out."

In reply to questions concerning use of planting machine for strawberries, E. H. Riehl, of North Alton, said that the planters will not work; they are all right for tomatoes and potatoes, but will not handle strawberry plants, as some of the plants will be too deep and some too shallow.

Other state societies have shown their sense of obligation to this great interest by more generous recognition in the program. The strawberry industry is coming into its own.

The Chance of Your Life

FOR the express purpose of helping our patrons into a more successful plan of growing bigger crops of better berries at less cost, we have established the Correspondence School of Strawberry Culture. It has cost us many thousands of dollars to learn how to grow big crops of fancy strawberries every year. We shall be glad to give you the benefit of our experience and save you many costly mistakes.

All sorts of questions relating to the production of strawberries for market and in the family garden, are here answered by experts who have made a wonderful success in the strawberry business and are now operating the largest and most successful strawberry farm in this country. The information you receive comes fresh from the strawberry field. Advice counts for little unless it comes from those who thoroughly understand their business. Success comes by following those who are successful.

Every detail of the work will be made perfectly plain; the lessons taught will be practical and common-sense. We shall recommend nothing save that which must be done in order to attain big results. Our whole aim is to make the members of this school the leaders in their section—if commercial growers, then to take the top prices on the market; if growing for family use, to have *the* strawberries of the neighborhood.

While it costs us many thousands of dollars to furnish this instruction, information and advice, it will cost you but $1 per year to enjoy all its benefits. How can you afford to be without it? Send your membership to The Kellogg Publishing Company, 118 Portage Ave., Three Rivers, Michigan. You will never regret it

Don't Let It Get By You

SO you think "any old place" will do for your garden, do you? Well, you will make a great mistake if you act on that notion. Get the best, the richest, soil you can find, work it up as fine as possible, manure it liberally, get good plants and seeds, practice the best of cultural methods—and success will be yours. And give the very best of the lot to the strawberry patch.

NO less an authority than the Department of Agriculture is responsible for the statement that the annual loss to American crops through the depredations of insects reaches the astounding figure of $700,000,000. Fairly makes one's head swim to try to imagine so stupendous a sum. And just think of what it suggests of the value of the sprayer when we know that already the cotton boll weevil which had been costing the cotton states as high as $30,000,000 a year, has been brought under subjection by its use. And the coddling moth, which annually has been ruining $20,000,000 worth of apples, is kept under complete control by the use of arsenical sprays. Then add

to this tremendous sum that lost by fungous diseases, which also are regulated and checked by spraying, and we see what it means to the world of today to be well supplied with a reliable spraying outfit. More than that, the world of tomorrow is just as much interested, for upon the wise handling of these dread pests now depends in great part the prosperity, perhaps the very existence, of those who shall come after us.

Strawberries "On the Side"

ONE of the fine features of strawberry growing is that it gracefully lends itself to one's circumstances. You may grow them on a large scale with great pleasure and profit; or, if your time and space are limited, you may grow them on never so small a scale and get the pleasure, with profits to match the size of the patch. We have one friend who is becoming an adept in the art of strawberry growing, while he attends daily to another line of work. So successful is he, and so in love with his work as a soil tiller, that we shall not be surprised to see him lay down his trade and adopt as his vocation the delightful and satisfying work of strawberry production on an extensive scale.

The illustration herewith shows the fine strawberry patch of the gentleman in question, Elijah Wing, barber, of Three Rivers. Mr. Wing set out 600 plants of the pedigree sort in 1903 just to see how they would do. The results were so satisfactory that he determined to enlarge his "plant." The photograph shows about an acre of ground, and a lot of plants that anybody might well be proud to call his own. The beauty of Mr. Wing's enterprise is that it has been carried on out of working hours. He wields the scissors and razors with all the skill for which he is known, and then, when a spare hour is at his command he hastens to his particular pride, the strawberry patch. And he has given it such cultural care as to make it one of the sights of the town especially at fruiting time.

Mr. Wing has planted Bubach, Glen Mary, Senator Dunlap, Warfield and Pride of Michigan, and every one of them has done well. The Portage river flows by his strawberry field, and there is doubtless sub-irrigation affecting beneficially the enterprise. Just now the entire patch is under a mulch of clean, bright, yellow straw, and Mr. Wing contemplates with satisfaction the possibilities of 1906.

What Mr. Wing is doing is open to nearly everybody else to do. How many men who find their income short of what they think it ought to be might find pleasure and health and a cheerful way to make an honest dollar in such a strawberry patch as he has developed by the employment of his spare hours? And how many others who are out of employ-

HOME AND STRAWBERRY PATCH OF ELIJAH WING

Special Fertilizers for Strawberries

peaches and other fruits. To give color, flavor and substance to the fleshy parts of the fruits requires a good supply of soluble plant food, especially potash. **Quality is what counts in fruit**, not quantity

WE MAKE SPECIAL BRANDS FOR THE DIFFERENT FRUITS

We sell goods direct to the consumer at wholesale prices where we have no agents.

For further information address

THE BUFFALO FERTILIZER COMPANY

BUFFALO, N. Y.

TREES, PLANTS, ETC.

We have an unusually fine stock of One Year Old and June Bud Peach Trees. One and Two Year Old Apple, Pear, Cherry, and Plum Trees. Grape Vine, Shrubbery, Roses, Etc. Also all kinds of Small Fruit Plants. Strawberry plants by the million. Send for catalogue of low-delivered prices before you buy

CHATTANOOGA NURSERIES, CHATTANOOGA, TENN.

NEW VEGETABLE WONDER

A Sensational Discovery

Silver King Hardy Celery

3 crops in one season. First crop early in May. Root hardy, everlasting. Multiplies rapidly like asparagus and guaranteed as represented. Agents make $5 to $20 a day. TREES by the million. Northern grown, 700 acres. Buy from the Big Nurseries. Agents wanted. Cash paid weekly. Greening Fruit Book, 25c. Write today.

THE GREENING NURSERY COMPANY

28 Maple St., Monroe, Michigan.

FREE

ALL TOOL STEEL

AGENTS FINE SAMPLE OF 12 TOOLS IN ONE HATCHET, HAMMER ETC

WRITE FOR OUR FREE OFFER

HAS NO EQUAL

NATIONAL TOOL CO.

3 Rivers, Mich.

No. 2 3d Ave.

450,000 TREES

200 varieties. Also Grapes, Small Fruits etc. Best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. Lewis Roesch, Fredonia, N.Y.

ment altogether, or for a share of their time, might find in his example a way out of poverty to the high road of prosperity? It's worth while thinking of these things and—doing them. If Mr. Wing should be compelled for any reason to give up his shop work he is all ready, through his self-acquired knowledge of strawberry culture, to step into a paying business and make a success of it. Such an experience ought to be an inspiration to everyone.

Stands By Pedigree in Plants

IN a paper recently read before the Minnesota State Horticultural Society on "The Seedling Apple Orchard," J. M. Underwood of Lake City, took occasion to advocate the pedigree idea in plants, comparing the work done in the matter of plants to that achieved by breeders of animals. He declared that the vegetable should be as intelligently treated as the animal kingdom and varieties as carefully selected and bred. Horticulturists should learn a lesson from the animal breeders, who have attained such wonderful and satisfactory results. Horticulture has had too little attention given it, and should take its proper place. If horticulturists had spent as much time on peaches as stockmen have on horses, Minnesota would be shipping peaches (and strawberries, too.—Editor Strawberry) of late varieties to the South.

Hardiness can be secured said Mr. Underwood. Prof. Hansen has bred a hardy raspberry that stands up and defies the Dakota climate without protection. A hardy cherry is needed. If Burbank could improve the black walnut in California, why not in Minnesota? Much more could have been done had plant breeding been as well understood as now when northwestern horticulturists began their work. There should be a herd-book of horticulture, a record of plant breeding. Some plan should be devised for a plant breeders' society with a pedigree book. Get to work in a more practical way, and more will be accomplished in ten years than in the past forty.

One by one the thinking horticulturists of the country are coming to understand this matter, and twenty years from now the man who sneers at pedigree plants will be put into the same category with the tumble-down farmer who sees no difference between scrub animals and pure-breds.

In this connection it is interesting to note that Mr. Underwood is the leader in the movement which has resulted in the organization among the members of the Minnesota Horticultural Society of the Minnesota Plant Breeders' Association, which shows that it means business by the way it does things. For instance, the association offers $500 in premiums to encourage the breeding of apples from seedlings, and it has established an advanced record book, like the advanced herd book of the dairy breeders, where only such fruits and flowers will be recorded as possess special merit.

The Strawberry would like to see every state in the Union follow the fine example thus set by Minnesota.

Proper Mating of Varieties

THERE is great confusion among strawberry growers, and particularly in the case of beginners, regarding the proper mating of varieties—mating them so that the largest possible yields may be secured. Improper mating results not only in reducing the yield to an unprofitable point, but in producing rough, hard, poorly formed and poorly flavored fruit. So many have asked us the cause of these troubles that we present herewith a sort of schedule for the proper handling of pistillate varieties. It will be observed that we place the pistillate, or female, varieties in rows be-

Let Me Tell You the Special Price On This Genuine 1906 Chatham Incubator

YOU see we make more incubators than any other concern in the world.
We have two big factories equipped with every up-to-date labor-saving appliance.
We buy lumber in immense quantities.
And turn out from six to seven hundred Incubators a day.
This means high grade machines at low cost.
Now we are after the trade with an Incubator of up-stairs quality at a down-stairs price. And to prove to you that Chatham Incubators are the best made, we are willing to let you try one 84 days **FREE.**

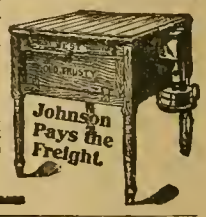
You can take off four hatches, and, if the machine isn't exactly as represented send it back at our expense. Could we make a fairer offer?
But we go further even than this and guarantee every Incubator we sell for five years—a direct iron-clad guarantee. Send for our FREE Catalog today.
Your name and address on a post card mailed at once gets the whole story by return mail

The Manson Campbell Co., Ltd.
282 Wesson Avenue, Detroit, Mich.

Johnson says to tell you his Incubator Book is better than ever. 300 illustrations, 124 pages, every one a lesson.

The Automatic Old Trusty Incubator.

The Incubator Man's crowning success. Years of experience in it. Three years of satisfaction to thousands of patrons.
Don't experiment with alleged new models and improvements. Old Trusty, double-walled, case within case, California redwood and sheet copper, with direct acting automatic regulator; easiest to operate because it runs itself. Good hatches first time and every time, no matter where you live.

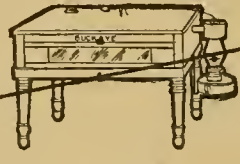


On 40, 60 and 90 Days Trial

Time to try till you're satisfied you have a bargain, when you buy Old Trusty. Book cost a dollar to make, but it's paid for and free to you. I want you to send for it Distributing houses in all parts of the country. Write to

The McClanahan Co., Eugene, Ore., and Los Angeles, Cal., Pacific Coast Selling Agents.

M. M. JOHNSON CO., Clay Center, Neb.



THE AMERICAN HEN OUTWEIGHS THEM ALL. STATISTICS PROVE IT.

Get a Buckeye on **FORTY DAYS TRIAL.** As low as **$5,** or 200 egg size, **$12.75,** or RENT one at **$1** per month. Let rent pay for it, *we paying freight,* or buy *parts* and *plans* and *build one.* They are self regulating. Guaranteed best work and material, and to hatch every hatchable egg. A town lot is large enough for the business, but a farm is better. Everything the poultryman needs of Best Quality and at Lowest Prices.

A 6 ft. by 3 ft. Iron Roof Colony House, complete, for $5.75. Foods with no Grit in them. A 25c package Buckeye Chick Starter will save you dollars.

Catalogue Free. BUCKEYE INCUBATOR CO., Box 40. SPRINGFIELD, OHIO.

$10.00 FOR THIS 200 EGG PERFECT HATCHER & BROODER COMBINED

100 Egg Size $6 Brooders $5
B. P. Rocks-Eggs $1 per 15. $5 per 100.
TESTIMONIALS & ILLUSTRATED CIRCULARS 2¢
J. A CHELTON FAIRMOUNT, MD.

AMERICAN POULTRY FARM

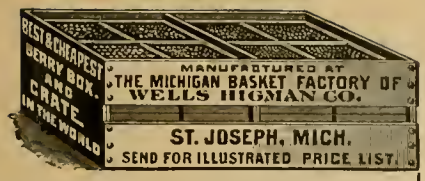
We breed for Color, Vigor and Heavy Egg Production.
Our Leghorns and Wyandotte hens have records of over 200 Eggs per year.
Eggs for Hatching from 40 Breeding Pens of Barred and White Plymouth Rocks, White and Silver Wyandottes, White and Brown Leghorns and Bronze Turkeys.
30 Years' Experience in Breeding . . . Circular and Prices Free
F. M. MUNGER & SONS, DeKalb, Ill.

My WHITE WYANDOTTES

are bred for eggs and meat, with due regard for standard requirements. If you want a combination of beauty and business write me. Eggs from choice matings,
$2 per 15; $5 per 45; $10 per 100.
A. M. GRECIAN, FLATROCK, IND.

METAL MOTHERS

Complete fire-proof hatching and brooding plant for $7.50. 2 qts. oil hatches 50 eggs and raises chicks. Catalogue free. CYCLE HATCHER CO., Box 320, Salem, New York.


BEST & CHEAPEST BERRY BOX AND CRATE ON THE WORLD
MANUFACTURED AT
THE MICHIGAN BASKET FACTORY OF
WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST

HEADQUARTERS FOR

Berry Boxes

PEACH AND GRAPE

BASKETS

ALSO MELON BASKETS

Established in 1869

Experience Counts

To obtain highest prices for your fruits ship in our packages

Illustrated Price List Free

Wells-Higman Co., ST. JOSEPH, MICH.

A Cracker Jack Idea

You have the fresh popcorn and other necessary material, and I have the formula for making the most crisp, delicious and healthful Cracker-Jack on earth. Now, what I propose to do is to send you my formula with complete instructions for making "Potter's Famous Cracker-Jack" if you will send me 25c. Why pay a big price for a little bag of stale cracker-jack, when you can

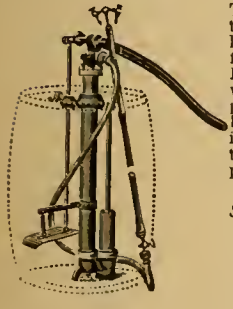
Learn How to Make My Famous Brand

at so small a cost? Send me 25c in silver or two-cent stamps and I will forward my formula and full information to you by return mail. It will tell you how to make your own cracker-jack, and earn big money

Clark Potter, The Cracker-Jack Man, Three Rivers, Mich.

We vouch for Mr. Potter.—THE KELLOGG PUB. CO.

Spray or Surrender



That is the ultimatum that insects and fungi have served on every fruit grower of America If you do not heed the warning you will not get profits from your orchard Every man who sprays intelligently at the proper time finds it the most profitable operation on the farm

Send for illustrated catalog of the Eclipse Spray Pumps and Outfits

MORRILL & MORLEY,

Benton Harbor, Mich.

DEWBERRIES

After Strawberries, the best paying crop the small fruit grower can raise

Write about Plants and Culture to

T. H. Smallwood, Box 5 R 1 Fort Scott, Kas.

Berry Baskets

Quarts, $3 per 1,000

Hallock'a Cups, Hallock'a Boxes, Crates, Etc., in stock.

Send for List. W. D. Soper, Jackson, Mich.

Mention "The Strawberry" when writing.

tween a bisexual or male variety, one bisexual a trifle earlier, the other a trifle later, than the pistillate used as the leader in the particular case. This keeps a steady stream of pollen flowing from both sides, furnishing the very earliest and the very latest bloom to the pistillate, thus insuring a big red berry from every bloom:

WARFIELD (P)
1 row Texas or Climax (B)
3 rows Warfield (P)
1 row Senator Dunlap (B)
3 rows Warfield (P)
1 row Texas or Climax (B)

CRESCENT (P)
1 row Texas (B)
3 rows Crescent (P)
1 row Splendid or Tennessee Prolific (B)
3 rows Crescent (P)
1 row Texas or Climax (B)

HAVERLAND (P)
1 row Lovett's Early (B)
3 rows Haverland (P)
1 row Parson's Beauty (B)
3 rows Haverland (P)
1 row Lovett's Early (B)

BUBACH (P)
1 row Bismarck or Clyde (B)
3 rows Bubach (P)
1 row Dornan or Aroma (B)
3 rows Bubach (P)
1 row Bismarck or Clyde (B)

SAMPLE (P)
1 row Parsons' Beauty or Dunlap (B)
3 rows Sample (P)
1 row Aroma or Dornan (B)
3 rows Sample (P)
1 row Parsons' Beauty or Dunlap (B)

MARK HANNA (P)
1 row Lovett's Early or Parson' Beauty (B)
3 rows Mark Hanna (P)
1 row Aroma (B)
3 rows Mark Hanna (P)
1 row Lovett's Early or Parsons' Beauty (B)

DOWNINGS BRIDE (P)
1 row Ridgeway (B)
3 rows Downing's Bride (P)
1 row Miller (B)
3 rows Downing's Bride (P)
1 row Ridgeway (B)

GLEN MARY (Partly Bisexual.)
1 row Parsons' Beauty (B)
3 rows Glen Mary (P)
1 row Tenn. Prolific or Lovett's Early (B)
3 rows Glen Mary (P)
1 row Parsons' Beauty (B)
1 row Tenn. Prolific or Lovett's Early (B)

GANDY (First Bloom Barren.)
1 row Aroma (B)
3 rows Gandy (P)
1 row Dornan or Marshall (B)
3 rows Gandy (P)
1 row Aroma (B)

It must be remembered that most all pistillates have a very long blooming season, and there are very few bisexuals that will open bloom through as long a period as the pistillate would require to insure a full season of fruiting. Hence the need of using bisexuals of two seasons.

Please note that we treat Glen Marys as a pistillate. This is because it is only

FRUITMEN SHOULD KEEP BEES

There will be a nice income to you from a few hives of bees, and your

Plants will Bear Better

Fruit bearing depends upon the fertilization of the flowers. Why not make fertilization certain and at the same time add to your income by keeping bees?

Bees are not expensive and can be made extremely profitable. Do you want to know how? Our printed matter will start you right. Many interesting booklets **free.**

"The A B C of Bee Culture"

the best text-book for bee keepers ever written, with over 500 large large pages, beautifully illustrated, for only **$1.00.** Send for free booklet.

The A. I. Root Co.,

MEDINA, - - - OHIO

We Make We Sell We Guarantee

We are not inviting you to buy a vehicle through a mail order house. We are manufacturers. "Direct" with us means **direct from factory.** **Three Years Guarantee and 30 Days Free Trial** before you close the bargain. We make the price just about half of others, and even after you have bought, you get your money back without cavil if you find a flaw in three years time. That's the advantage offered Progressive vehicle buyers. A couple special bargains. Complete catalog tells it all. Don't fail to send for it.

THE PROGRESSIVE VEHICLE MFG. CO.,
Dept V. Ft. Wayne, Indiana.

THE CRESCENT ENGRAVING CO

KALAMAZOO, MICHIGAN

Engravers, Electrotypers
Catalogue Makers

Landscape and Nursery Work
A SPECIALTY

Only house in the West making Steel Electrotypes. For durability and definition these practically equal original engravings

Samples and Estimates Cheerfully Furnished

WRAGG TREES We Grow Them

So we can guarantee them. All the varieties known as "best" are from our nurseries. Handsome illustrated catalogue on request. THE OLD RELIABLE

..CENTRAL NURSERIES..

J. WRAGG & SONS CO., WAUKEE, IOWA.

Mention "The Strawberry" when writing

partly bisexual, and its pollen does not act as a perfect fertilizer upon its own stigma.

Gandy also is treated as a pistillate because its first bloom is almost entirely barren of pollen. Handled in this way it is a very valuable and prolific variety.

And remember that the suggestions above may be applied to other varieties. That is to say, all pistillate varieties should be treated just as those shown above, the point being that the bisexual, or the staminate, varieties set with them must be of the proper season—on one side of the pistillate a bisexual of a little earlier season; on the other a bisexual of a somewhat later season than the pistillate. If this be carefully noted, every reader may completely understand the whole system of mating varieties of strawberry plants so as to insure largest results.

Practical Strawberry Culture

By A. D. Stevens

WE have been growing strawberries for thirty years and have made a careful study of the nature of them. We can truthfully say that no grower can afford to do without a propagating bed for growing plants from which to raise large crops of fine berries.

The plants in the first place, should be selected, and none but large, well-balanced plants used, and then when they begin to show bud all that do not bud satisfactorily should be taken out, leaving only the fruitful plants.

The plants in the propagating bed should be set farther apart than when intended for fruiting purposes and then all plants after September 1 should be kept cut off so as to allow the ones that have set to fully develop.

Any plant grower who fails to follow these plans or similar ones is not a safe man to purchase plants from. His cheap grown plants are grown at the purchasers' expense. Of course, he can grow plants and put them on the market at very low prices, but they will not be cheap to the buyer at any price.

The first step in growing large crops is the careful selection of plants. No matter what other plans are adopted, if this is not done the crop must partly fail if it do not completely fail.

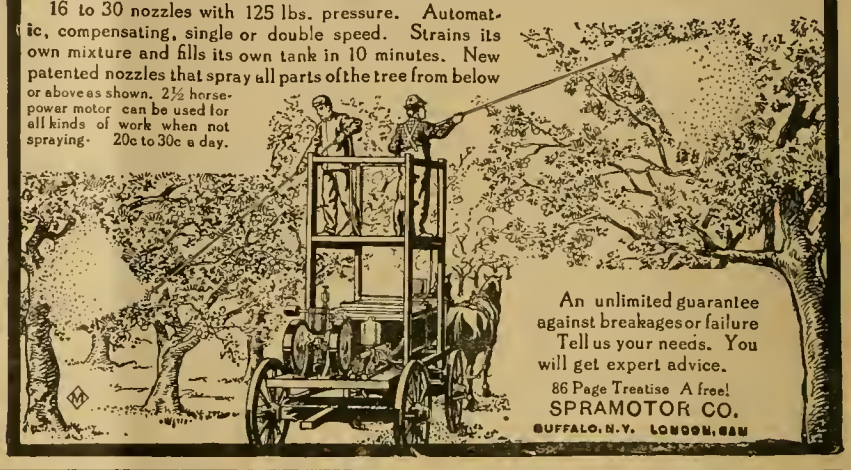
Bridgeton, N. J., Feb. 7, 1906.

MAN may plant and Nature may water and send days of glorious sunshine, but if you haven't a good spray outfit there's always danger of the fruit crop. The fungous diseases and the dread insect pests are kept in check only by intelligent use of the sprayer, and none who would win success with fruit, but must be well prepared to meet these enemies and vanquish them at the very first struggle. There are many reliable outfits now being made, and man's ingenuity is ever at work to devise new and improved methods for the economical, safe and effective application of the mixtures that never fail to put the ravagers of plant life to flight, if they are put on in the right way. Among the best machines made are those whose makers find it to their advantage to advertise in The Strawberry, and we hope our friends may not neglect the opportunity now given to investigate the various outfits represented in these pages and make a choice of the one that appears best suited to their particular requirements.

Power Spramotor

SPRAYS 250 TREES PER HOUR.

16 to 30 nozzles with 125 lbs. pressure. Automatic, compensating, single or double speed. Strains its own mixture and fills its own tank in 10 minutes. New patented nozzles that spray all parts of the tree from below or above as shown. 2½ horse-power motor can be used for all kinds of work when not spraying. 20c to 30c a day.



An unlimited guarantee against breakages or failure. Tell us your needs. You will get expert advice.

86 Page Treatise A free!

SPRAMOTOR CO.

BUFFALO, N.Y. LONDON, CAN.

This Row Sprayer IS PRETTY NEARLY THE IDEAL OUTFIT FOR THE MAN WHO RAISES STRAWBERRIES, POTATOES, ETC.

The sprayer mixture is forced with high pressure to every part of leaf and branch. It is one of the

WALLACE

Automatic Sprayers

All you do is to sit and drive. Driving generates the power. Notice that each row is covered by these spray nozzles, and you can incline them up or down, or in any other direction. Spray either two or four rows, any width; no equal for thoroughness and easy work. We make various styles of these Power Sprayers for orchard and field work. Also best gasoline engine outfit made. **"The Wallace Spray Way,"** our book, gives all particulars.

WRITE FOR IT

WALLACE MACHINERY COMPANY, Dp't 50, CHAMPAIGN, ILLINOIS

DOES your manure lose nitrogen rapidly? It is a simple matter to arrest it and you will improve the manure as well if potash in some form is added, especially of the potash salt. Kanit has been found useful for this purpose. It is crude sulphate of potash and contains a large portion of salt. It will arrest the escape of ammonia and prove valuable of itself when applied to the land. It is also excellent on land infested with grubs, though not a complete remedy for such pests. It is cheap and of very great value.

PHOSPHORUS in the soil is a wonderful builder. It has staying qualities. Unlike nitrogen, it is not volatile, but gives off its plant food slowly, enriching the soil by degrees. One instance is reported from Missouri where 600 pounds of ground bone was applied to each acre of an orchard eight years ago, and its influence upon crops is still manifest. Ground bone is one way to get the phosphorus back that is fed to the livestock—the only way, in fact. Another way to get phosphorus in the soil is to buy the raw rock phosphate now being produced so extensively and at so reasonable cost in the great phosphate mines of Tennessee and other Southern states. It will pay you to investigate.

THE HOME AND STRAWBERRY PATCH OF E. J. VREELAND, SCHOOLCRAFT, MICH.

Mr. Vreeland is a living example of the fact that strawberry culture holds its interest long after the frosts of many winters have left their marks of advancing years. He is as enthusiastic now as ever. In a note to The Strawberry, received just as we go to press, Mr. Vreeland says: "I have been growing strawberries for the last twenty years. I always get a good price for my berries. I use the quart boxes, put just as good berries at the bottom of the box as I do at the top; have the box full, with the hulls all down. Then the berries look fine." Among Mr. Vreeland's favorites are the Aroma, New York and Senator Dunlap

Some Reminiscences of An Old Timer

By August Melcher

STRAWBERRIES! As far as my memory goes back—to the days when I was a barefoot boy rambling in green meadows and beside the creeks and rivulets—of my rural surroundings, do I recall the wild strawberry, ranging in size from a small pea to a medium-sized acorn. Ah! there were so many varieties of them, and so beautiful were they, and so delicious! How that barefoot boy enjoyed their fragrance and their sweet flavor, as he gathered these dainties from meadow and fence corner. And how kind was nature to these little volunteers. Just enough of moisture, and under the mulch of fallen leaves just enough temperature to satisfy the wants of the juicy berries. And the rain fell just when it was needed—not heavy rains, but fine showers, just suited to the nature of the little plant.

I wonder how much one acre of our modern, highly developed plants would yield under our latter-day methods of cultivation, if just these favorable conditions were supplied them by nature. Surely something enormous in the way of yield.

Later in life I found my neighbors were setting out plants they had bought from nurseries here and there, and sometimes they had crops of berries that made them enthusiastic. I heard them tell with joy that they had picked so many quarts of "tame" berries from their patch on such-and-such a day. In the fall of 1885 I concluded to get some plants on my own account and try to grow enough for my own use. I gathered all the information afforded by my neighbors and the limited amount of literature on the subject, and procured about 250 plants, and set them the next spring in rich clay soil. Clean culture was given them, and blossom buds were strictly removed, and in the fall they were covered with a fine mulch of clean straw. The next spring a thousand plants were set out and given the same care and treatment.

Once more I was the expectant barefoot boy with high hopes. And my first bed was indeed pretty to look at. During blooming time it rained hard and often and myself and my good neighbors concluded that this was the sole and sufficient reason for the failure of my plants to fruit; for not one quart did I get. For two years I set out a patch from the original stock, waiting with patience for my fine berries that never came. Then I was discouraged. Certainly, we had some years that were fair enough, and the trouble was not all on account of rainy weather and frost. And my mind went back to those wild berries that grew when I was a boy on these very acres. Was my mode of culture wrong? No; the plants were fair to look upon, a fact which went to show they had been well cared for. Then it was I discovered that I simply had fooled my time away in growing unproductive plants! Knowing nothing of the mating of different varieties, I simply had set out pistillate varieties time after time.

Kind providence now came to my aid. I always have taken to horticultural literature. Through this I was directed to the right way. I was induced to try again. And so I did for two seasons more, then, I said if I do not get enough fruit while the season lasts I will quit for good. I now procured and set according to my new advices. As the saying goes, "a burnt child shuns the fire," and I did not dare set more than a few plants the next season, thinking I might work in vain as before. That second spring I was not expecting much anyhow, the winter just past having been quite severe. But at last I was agreeably surprised. I did get enough for my wife and myself to eat and to can, and I then had some to sell and some I gave away. I now considered it would pay me to grow berries for market. The following spring I set one acre to plants from those last procured. I also renewed my stock of the same strain for propagation and the spring following set one acre adjoining.

The winter then gone had been so severe as to kill outright about one-third of my plants set the preceding spring. Despite all this, I harvested a big crop of berries to my intense satisfaction. After renovating my first acre I got another severe winter, but the plants wintered fairly well, starting vigorously in the spring of

1905. But now came that same rainy weather as in 1896 only this later season was much harder—cold and rainy, and hail and winds. But still I was rewarded with a big crop of fine fruit from my two acres.

. . . . . .

But now! Ah! the big beauties I now raise—how do they exceed the highest expectations of the barefoot boy! Their general excellence and their fine flavor far and away surpass those of the wild berry of the old time, while the yield is something tremendous. All that I can say is that my start was unsatisfactory—only because I didn't know how. Now what I am doing is in every way satisfactory, and I know that actual results far exceed my highest hopes. More than that, I am confident that there are greater possibilities in strawberry production than we yet have attained.

Stockholm, Wis.

Overflow Question Box

HERE are a few questions that came in too late to get into the regular department, and so we place them in the "Overflow." Please get in your questions as early as possible. You will see that they are increasing in number.

Mrs. A. L. H., Fitchburg, Mass. The February Strawberry at hand and it is a gem—just a little better than the January number. My strawberry plants did not make as good growth last summer and fall as usual. What kind of dressing can I put on this spring to bring about desired results? We have about three-fourths of an acre, mulched with horse manure. What kind of fertilizer and how much?

We should apply fifty pounds of nitrate of soda to the acre just as growth starts in the spring. Scatter this along the rows; be careful that it does not get on the plants. Repeat this application just before the buds open. Both of these applications should be put on just preceding a rain. It will be unnecessary to apply nitrate of soda where the stable manure has been employed.

W. R. A., Alliance, Neb. I am interested in Mr. Walsh's winter strawberries (see January Strawberry) and desire to ask:

1. Should the first runners in the spring be saved to transplant? 2. What is the best time to transplant? And if transplanted in October, as Mr. Walsh did, what time in the winter should they have ripe berries? 3. Would not shelves in the form of stair steps be as good and cheaper than earthen pots? 4. Would the plants be good for more than one year. 5. Should any of the blossoms be removed and if so, how long?

1. No.

2. The best time to transplant is early in September, and the best way to do it is to take six-inch pots, fill with good rich earth and set by mother plants; layer good strong runners into the soil in the pot and lay a small stone on them to hold into place. Let them remain in the field until the first light frost; then remove to the house. As a rule they will start fruiting from the first to the middle of January.

PARTING THE MULCH FROM OVER THE ROWS

WHEN growth starts in the spring, you should go over your fruiting beds and part the mulch from directly over the row, so that plants may come up through the opening thus made. This is best done with a common fork, as shown above. If this work is not done in time, there is danger that the plants will bleach and become tender.

3. If you use boxes on shelves you should transplant plants from the field into them the first of September, leaving considerable dirt on roots when transferring.

4. These plants will fruit for one year only.

5. Do not remove any blossoms; give plants plenty of water and a little weakened liquid manure once a week, but never apply this manure while the ground is dry; always put water on the plants first.

E. H. I., Chicago, Ill.—How early in the fall should I mulch my strawberries, and to what depth should they be covered?

In Illinois, where the ground freezes to a great depth, mulching should be done after the first light freezing, and covered to a depth of four or five inches. Where mulching is used so heavily as this, it will be necessary to part this mulch from over the row somewhat earlier in the spring than where plants are more lightly covered. If this is not done there is a possibility of bleaching the plants.

J. S. C., Battle Creek, Mich. Please state in your next issue of The Strawberry what you consider the most valuable form of box and crate that may be used for strawberries?

The Hallock quart boxes always have been very popular in this state. The wax-lined paper baskets also are coming greatly into vogue. There are many manufacturers of strawberry boxes who are making first-class goods, and all have loyal patrons who consider the ones they use best suited to their needs. It would be quite impossible to say which is the best; indeed, it is doubtful if the dis-

The Naylor Combination Harrow

TWO TOOLS IN ONE

THE best harrow on earth because it puts the soil in ideal condition at less cost than any other. Once over the ground with the Naylor Combination will prepare the soil in much better condition than twice working with any other, and it is easily drawn by two horses. ¶ The spring teeth dig deep down, thoroughly mixing the soil; the spike teeth pulverize and level the soil, and leave it a perfect seed bed. Each harrow has eighteen spring teeth and forty-two spike teeth. Two levers enable the operator to adjust the teeth to any desired position. Just the thing for orchards and berry farms.

In the fall of 1905 the Naylor Harrow was severely tested on 23 of the best farms in St. Joseph county, Mich., and 22 of these farmers purchased them---a record unequalled by any other harrow

Don't buy a harrow until you know all about THE NAYLOR COMBINATION
Write me today and I will tell you all about it

FRANK R. FISHER, Box 5, MOOREPARK, MICH.

Tufts' Sectional Crate

Neat in Appearance
Well Ventilated
Quarts can be Well Filled, Yet
No Mashed Fruit

Displays fruit to best advantage. Especially adapted to the local market. Investigate.
Catalogue Free

Elmer G. Tufts, Aurora, Indiana

BERRY BASKETS
AND CRATES

For Machine-made Stapled
Berry Baskets at $2.50 per 1,000
That are Strong, Neat,
Light and Durable, and

Berry Crates, Racks and Stands

Write to
ANDREW REESH
NEW SPRINGFIELD, OHIO

Let us Act as Your Factory
THAT'S OUR BUSINESS

We make nothing of our own for sale. Manufacture exclusively for others anything in metal. We refer you to the publishers of this magazine.

Kalamazoo Novelty Co., 200-216 Rose St., KALAMAZOO, MICH.

Fall-Bearing Strawberry Plants

"Pan American" and "Autumn." Produce a large and continuous crop of fine strawberries from August until winter. Plants for sale by Circulars Free. Samuel Cooper, Delevan, N. Y.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

tinction of the superlative degree safely could be claimed for any particular box, as "many men are of many minds," and what pleases one to a T suits another not at all. Some growers use the sixteen-quart crate, while others prefer the twenty-four quart crate, the former being used more extensively than the latter. Whatever box is used, careful and honest packing adds much to the price one gets for his fruit.

A Remittance in Rhyme

By J. A. Aulabaugh

THE STRAWBERRY'S a pretty miss,
Vivacious, fair and gay,
And very truly may be called
The Early Dawn of Day.
For we need no longer wallow
In quagmire nor in hollow.
So here's your mighty dollar
And I'm your strawberry scholar

Council Bluffs, Iowa

ONE good friend writes us in a kindly critical way to say that she does not believe in advocating the idea that "there's millions in" growing strawberries. Well, neither do we; although there is large success possible where conditions as to soil, climate and markets are all favorable. But what we do believe in is this, and we advocate it on all occasions: There is a good living, and an independent one, for any man or woman with the intelligence, the patience and the perseverance to care for a strawberry bed as should be done. And it does not require a high order of intellectual development to do this, although brains are valuable everywhere, and best results are sure to be found where the largest intelligence is joined to practical effort—this always is true whether it be in the strawberry patch, in the counting room or in the pulpit. And there are many honest folk, these days, seeking a means of independent livelihood; and these it is our duty, as it is our pleasure, to serve.

THAT pedigree has value in the plant and seed world was indicated quite clearly on the occasion of the meeting of the American Breeders' Association at Lincoln, Neb., a few weeks ago. On that occasion there was a corn show, and the best forty ears exhibited were sold to a son of the governor of Nebraska, O. E. Mickey, for the sum of $40, or just a dollar per ear—at the rate of from $80 to $100 a bushel. O. E. Mickey put that value of the pedigree corn seed at so high a figure because he desired to raise corn from such seed. And there is no doubt that he will get his money back if the corn is grown according to the best of modern methods. Poor seed or poor plants never can be made to do well, no matter what you do in the way of good culture. Good seed and plants may be

We Want An Agent

In every Town in every State of the Union and the Dominion of Canada to take subscriptions for

THE STRAWBERRY

A generous commission will be allowed on each subscription taken, and to the man or woman, boy or girl who will send us the largest number of subscribers in excess of 100 between this time and the 15th of December, 1906, we offer any one of the following list of tours as a prize:

¶ Round Trip to Washington, D. C., and $15 in cash to pay expenses while there.

Round Trip to Niagara Falls and same amount in cash.

Round Trip to Jacksonville, Fla., and same amount in cash.

Round Trip to the Farm Home of The Strawberry and a full week's entertainment.

The winner may choose which of these tours will be taken and when, and The Strawberry will publish a full account of the trip, illustrated with the winner's photograph, and a story of the way in which the prize was won.

Write us for sample copies and get to work.

DO IT NOW

THE STRAWBERRY
118 Portage Ave. THREE RIVERS, MICH.

Paint Without Oil

Remarkable Discovery that Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package and a Big Book Telling All About Paints and Paint-Making are Mailed Free to Everybody Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes to you a dry powder and all that is required is cold water to make a paint weatherproof, fireproof and as durable as oil paint. It adheres to any surface, wood, stone or brick, it spreads and looks like oil paint and yet only costs one-fourth as much. For many purposes it is much better than oil paint and is indispensable to every property owner.

Write to Mr. A. L. Rice, 550 North St., Adams, N. Y., and he will send you a free trial of his new discovery, together with color cards and his valuable book on Painting, all free. This book lets you into all the secrets of paint-making, exposes fake paints, tells you what kind of paint to use for different purposes and shows you how you can save and make a good many dollars. Write today and the book and free trial of Paint will be sent you by return mail.

32 YEARS SELLING DIRECT

We are the largest manufacturers of vehicles and harness in the world selling to consumers exclusively.

We Have No Agents

but ship anywhere for examination and approval, guaranteeing safe delivery. You are out nothing if not satisfied as to style, quality and price. We make 200 styles of vehicles and 65 styles of harness. Our large Catalogue is FREE. Send for it.

No. 626. Leather Top Buggy with Leather Covered Bows and ¾ inch rubber tires. Price complete $68. As good as sells for $25 more.

No. 327. Canopy Top Surrey. Price complete $73. As good as sells for $25 more.

Elkhart Carriage & Harness Mfg. Co., Elkhart, Indiana.

killed by neglect. But with first-class plants, selected and bred from only the best of parent stock, you have the foundation for unlimited success. Lay upon this foundation the stones of good cultural methods and correct business principles, and you are as surely building for success as that the sun shall rise upon the morrow.

⚜ ⚜

ANOTHER good report on the subscription side of The Strawberry we have the pleasure of making this month. That the strawberry is the fruit universal is indicated anew by the fact that our subscriptions come pouring in from every state and territory in the Union, and not the least enthusiastic are our Canadian friends, whose enthusiasm extends from Cape Breton to Vancouver and is found all along the line between these continent-separated points. Even what we once considered the inhospitable prairies of Manitoba and Assiniboia are taking kindly to the strawberry. But we are far from satisfied as yet, for we want every man and woman who grows strawberries to be on our list. Won't you help us get them there?

⚜ ⚜

It Was Five Bites Big

ONE of our earliest subscribers, W. D. Hitchcock of DeTour, Mich., writes us as follows:

Here is a good one for Kellogg's. When I ordered my plants a few years ago, a neighbor of mine, a hotel-keeper, who has a garden, wanted me to let him have some of the strawberry plants. I did so, and though they were too busy growing cabbages, cucumbers, etc., to pay much attention to them, they did grow some berries.

The gardener, Keno, was at work in the garden one day, when the proprietor's little son, Angus, came out and said: "Keno, are there any strawberries?"

"Yes; a few."

"Can I have some?"

"Yes; you can pick just three."

Soon the little fellow came back, in great excitement. "Oh, Keno, I found an awful big strawberry!"

"Well, where is it?"

"Oh! I ate it!"

"How big was it?"

"Well, I got five bites out of it!"

LITTLE ADS. FOR OUR FOLKS

AN ADVERTISING EXCHANGE FOR ALL Strawberry Growers in which they may make known their wants. If you have anything to buy, sell or exchange, need a job or are looking for help in your strawberry work, here is the place to make it known. Count name, post office, initials, words or numbers each as one word, and remit a sum equal to 2 cents for each word for each insertion. No order will be accepted for less than 25 cents and cash must accompany each order. Advertisements must contain address, otherwise we cannot forward replies from this office. Remit by post office or express money orders.

FOR SALE—"Pan American" and "Autumn" Strawberry Plants that will bear from August until November. Send for circular. Samuel Cooper, Delevan, N. Y.

PRINTING FOR STRAWBERRY GROWERS—Letter heads, envelopes, cards, labels. First-class work at low prices. The Kellogg Publishing Co., Three Rivers, Michigan.

TRY the Kellogg malleable-iron, one-piece Dibble, if you would turn plant-setting into a delight. Pays for itself in one half-day's work. Write the Kellogg Co. for their little folder on "How We Keep Down the Weeds." 'Twill help you in your work. R. M. Kellogg Co., Box 775, Three Rivers, Michigan.

LONELY man, aged 41, now in tobacco district, but with interest in horticulture, would like to engage with small family in strawberry culture. Kindly write. Address K. O. A., care The Strawberry.

PALMETTO Asparagus; sowed April, 1905; waist high in September; $1.00 per 100; $4.00 per 1,000. By mail, 25 plants, 50c. C. Gould, Route 2, Gilman, Ill.

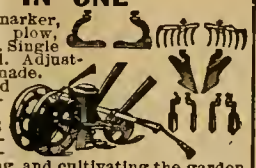
FERNWOOD POULTRY FARM, breeders of large, vigorous, heavy-laying Barred Plymouth Rocks; also Mammoth Pekin Ducks that won all firsts, Toledo, 1906. Eggs, $1.25 sitting. Route 2, West Toledo, Ohio.

WANTED—A young man who thoroughly understands strawberry culture, and who will make himself generally useful on a ranch. Apply with references, stating wages expected. McDermid and McHardy Nelson, B. C.

MATTHEWS' "NEW UNIVERSAL" GARDEN TOOLS

6 TOOLS IN ONE

Seeder, marker, hoe rake, plow, cultivator. Single or double wheel. Adjustments easily made. For planting and all kinds of cultivation.

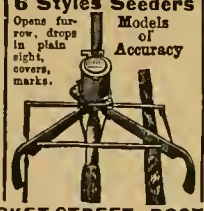


Send for FREE BOOKLET of valuable information for planting and cultivating the garden and full description of these implements.

6 Styles Seeders

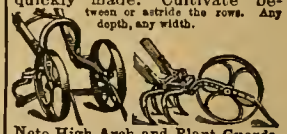
Opens furrow, drops in plain sight, covers, marks.

Models of Accuracy



Double or Single Wheel Hoe

Cultivator, Plow, Rake. Changes quickly made. Cultivate between or astride the rows. Any depth, any width.



Note High Arch and Plant Guards. Bent Oak Handles on all Tools.

AMES PLOW COMPANY, 143 MARKET STREET, BOSTON, MASSACHUSETTS

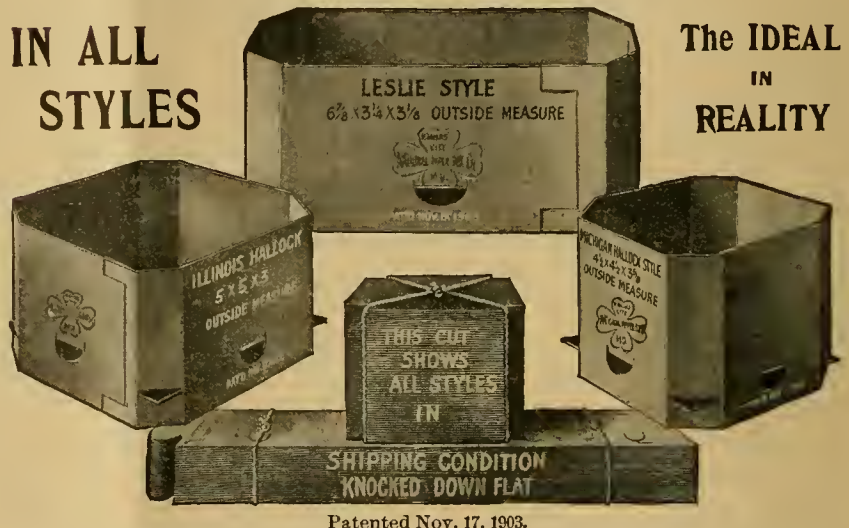
FOR SALE BY D. M. FERRY & CO., DETROIT, MICH.

THE BEST AND CHEAPEST. UNIVERSALLY ADMIRED.

NATIONAL BERRY BOX

IN ALL STYLES

The IDEAL IN REALITY



Patented Nov. 17. 1903.

NO skinned fruit; no nailing; no mildew; no warping; no splitting; no waste; no loss. A fruit preserver, folded in an instant. A clean, glossy, substantial package, aiding in the sale of fruits. Made from **Smooth Paper Stock,** coated on both sides with **odorless** and **tasteless best parafine wax.**

First Year's Results:

Sales in 29 States and communication with 44 States of the Union.

LESLIE STYLE GREATLY IMPROVED—double reinforced on bottom edge, which gives also EXTRA support for bottom on all sides. Folded-up sample sent on receipt of ten cents

WRITE FOR CIRCULARS AND PRICE-LIST AND READ UNSOLICITED TESTIMONIALS.

NATIONAL PAPER BOX CO.

KANSAS CITY, MISSOURI.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

NOTHING else so heartens one, so inspires him to his best, as to feel that his efforts are appreciated and are accomplishing beneficial results. We had expected much from this Correspondence School department because we knew of the problems and perplexities that the strawberry grower is compelled to meet and solve, and how helpful these queries and answers would be, but that the work should so soon have captured the attention of our readers; so quickly have met their warm and cordial approval, we scarcely had dared to hope. But from Monadnock to the Sierras and from the land of the Scuppernong to Snohomish have come to us such letters as "warm the cockles of the heart," and we reprint some of the words written us, partly as matter of pride and satisfaction, and partly because they contain of themselves matter of value.

This from a subscriber who went to the great fir-tree country of Washington and carved a strawberry patch out of the monster forests of the great North land:

Snohomish, Wash., Jan. 17, 1906.

I have been reading The Strawberry—Vol. I, No. I—and I surely got $5 worth out of the Correspondence School. Now when I can capture so good a thing as The Strawberry for $4 less than nothing a year, and you pay the postage, I won't let it escape; so here's a P. O. M. O. for $1 for subscription.

WM. L. COCHRAN.

Here is a word from a California subscriber that will be read with interest:

Ahwahnee, Calif., Jan. 17, 1906.

The Strawberry received, and I am very much pleased with it; the one issue is worth more than the price of a year's subscription. One gathers so much information from the Questions and Answers, as it places the cultivation of the strawberry under so many different conditions. One must have very peculiar conditions, indeed, if some of them are not similar to his own.

I am growing strawberries in the Sierra Nevada Mountains on the stage line to the Yosemite Valley and at an altitude of 6,000 feet above sea level. Our summers are very nice, as we are in the midst of a dense forest of pines, firs, cedars, and the mammoth trees of California—the Sequoia Gigantea. The deciduous trees are the black oak and the dogwood. . . My berry vines are mostly on sub-irrigated ground, and I have been troubled not a little with the end of the berry next to the ground rotting; and as many of them measure from five to five and a half inches in circumference, it makes a considerable loss in the season's crop.

It is well enough to say right here that we have from five to twelve feet of snow here on the level—that the ground never freezes and the snow often lies on the ground into May. Before the ground gets settled and fit to work the strawberry plants have made a considerable growth and are in bloom. A good mulch is what I have been in need of, but as hay is $30 per ton and straw in proportion, and as I did not require to mulch as a winter covering, I thought it too expensive. But your article in the January issue on "Mulches and Mulching" has put me right, as there is a limitless quantity of pine needles in the nearby woods, and when the snow disappears shall try a carpet of nice clean needles for a resting place for the big beauties. Enclosed please find check; kindly book me for a year, and I will carefully read each issue and wait anxiously for the coming of the next.

W. H. CHAFFEE.

C. A., Litchfield, Ill.—In the spring of 1905 I set a small patch of strawberry plants. I started to handle these under the single-hedge system. After layering one runner each way from each mother plant, all other runners were kept off until about August I. After this date, owing to sickness, these plants were neglected, and runners thickly matted all over the ground. Now what is the best thing to do with these surplus runners?

You certainly started out all right; it is unfortunate that illness prevented you from carrying out your plans. It will not do to dig the surplus plants now, as to do so would disturb the roots of those which are left for fruiting. Inasmuch as you kept all runners off until the 1st of August, there is no doubt the mother plants are extra strong, and the two plants layered before the surplus plants began to develop have built up large crowns. If your patch is a small one, you may take a sharp hoe and shave off the extra runners just below the surface. This will not interfere with the fruiting plants and will increase the crop by giving the sun and air free access to the remaining plants. Of course, the same plan might be followed with a large patch, but it would be rather a tedious job.

A. L. M., Earl, Wis. I intend to set out one acre of strawberries in May, and would like your advice as to the best berry I can set. I am within forty miles of Lake Superior and subject to frosts in June. The land is quite high and sandy, but new and fertile.

As you are in the Lake Superior region we should advise you to set only of late varieties. One reason for this is that these varieties bloom late and therefore there is less danger from frost. Another reason is that strawberry growers in your locality may create an independent market by growing high-grade late strawberries. By using late varieties you should be able to send berries into Duluth, Superior, St. Paul and Minneapolis markets three weeks later than those which come to them from sections further south.

E. D. M., Colfax, Calif.—I would like to have your opinion about fertilizing strawberries with a mixture of lime-kiln ashes. I have three acres of very fine plants; have fertilized well with stable manure. Please advise me as to the best fertilizer to use next spring.

We assume that these ashes are from the wood used in burning lime. This being the case, you may safely apply from forty to fifty bushels to the acre. The proper way to do this is to distribute them evenly over the surface of the soil after it is broken up. This may be done with the shovel if care be exercised, or may be applied through the fertilizing section of a grain drill. Work these ashes thoroughly into the soil with harrow or disc before setting plants. Ashes are good for the strawberry because they contain from 30 to 32 per cent of lime, which sweetens the soil and makes the locked-up plant food in the soil available. They also contain enough potash to give a high color to the fruit. However, if used excessively ashes will give the berry a somewhat dull appearance. As you have used manure liberally it will be unnecessary to use any other fertilizer.

G. E. H., Middleburg, Pa.—I would like to know how long strawberry plants are to be worked in the fall, and how long the runners are to be kept off? Some fruits, if worked too late in the season, will not bear fruit the next year on this account. I have a nice patch of strawberry plants, and I would not like to spoil them by doing something that would ruin the prospects for berries in the spring. 2. I am doing some transplanting where there are some weak plants, and would like to know if it is better to leave a weak plant, or would it be better to replace it with a strong one at this time?

The length of time plants are to be worked in the fall will depend somewhat upon the habit of the variety. If the varieties you are growing are of the large-foliage type, with an upright growth, we would discontinue cultivation September 1, doing no work among them except to keep down weeds, if there be any. But if the varieties have a scant foliage, con-

tinue the cultivation until the first heavy frost, because this method stimulates a larger vegetative growth and helps to maintain a better balance between fruit and foliage. As to cutting runners, none should be allowed to take root after you have your row filled in according to the system in which you intend to grow them. If you are growing in a single-hedge row the cutting of runners should begin after your plants have made a continuous single row. If by the double hedge, then allow runners to grow a double line of plants. If the narrow-matted row has been adopted, allow enough plants to set to make the row twelve or fifteen inches wide. But where this last system is followed, no plants should set closer than six or eight inches to each other. Closer than that would result in producing small berries, just as corn would produce small ears if planted too closely.

2. Certainly you should grow only strong plants; never permit weak ones to occupy the ground, but always set strong ones in their stead. A weak, puny plant is like a weak animal; it will use up food, but give nothing in return.

E. E. K., Brownwood, Tex.—I believe I understand your double and single hedge row of planting, but do not know how far apart the rows should be set. West Texas is very dry and we must depend upon irrigation.

When growing strawberries in single or double hedge systems the rows should be from three to three and a half feet apart. By making a furrow directly between the rows and allowing the water to run in this, the water will percolate through the soil, traveling from one soil grain to another, dissolving the stored-up plant food as it travels. The plant roots will reach out for this moisture, which is charged with plant food. This process indicates that there are more advantages in irrigation than that of supplying moisture only, and where irrigation is done berries always should be grown either in single or double hedge rows.

A. J. S., Kalamazoo, Mich.—1. Is the Gandy a later berry than the Sample or Aroma, and if so how much later? 2. What variety should be planted along with the Gandy? 3. I now have one-half acre of Sample and Aroma on a black loam with clay sub-soil that was thinly fertilized with stable manure last spring before setting plants. Would any fertilizer put on this coming spring be a profitable investment for the coming crop? 4. How late is it profitable to hold plants back in the spring by mulching?

1. The Gandy is several days later than either Sample or Aroma, but the two latter have a longer fruiting season.

2. Gandy and Aroma go well together, as Gandy, being deficient in pollen, is amply supplied when planted near Aroma.

3. Your black loam should give a profitable crop of Sample and Aroma without any extra fertilizer, considering that the ground was well manured before plants were set.

4. The length of time which plants may be held dormant by mulching with safety will depend somewhat upon the season. If spring opens up with bright sunshine and warm rains, it will force the plants into growing. When this is done the callous on the root is bound to burst, and from each break in this root a feeder will start. This will force the foliage into action and if the mulch is not removed it will cause the plant to bleach and become tender. Ordinarily plants may be held from ten days to two weeks.

G. W. D., Durant, Miss.—Will the Dornan strawberry thrive in this locality, and what time will it ripen here? I should like to have a berry to follow the Klondike. If the Dornan will not do, what variety would you recommend?

The Dornan has become a standard variety and we get excellent reports of its performance from all parts of the country. If grown in the double-hedge row and properly handled, we see no reason why it should not suit your purpose, as it would ripen its first berries just when the Klondike is closing up its season. The Aroma and Gandy are very popular varieties in the South. Both of these will give fine results and should be mated.

Mrs. J. J. S., Superior, Wis.—Please tell me how to prepare a leaf-mold compost to be used for my strawberry bed.

First a layer of leaves should be placed about six inches deep. Cover these with a good grade of soil. Over this scatter manure to the depth of about two inches. Repeat this until you have the amount of compost required.

R. C. A., Loveland, Colo.—Have a plot of ground about twenty by sixty feet; it has been heavily manured for two years, especially for high-tension strawberry culture. I want to make this do all it will, and our soil will grow fine berries. Think some of putting tiling under for sub-irrigation. Will this pay?

As Colorado is strictly an irrigation country, we see no reason why sub-irrigation would not pay, provided an adequate quantity and an even distribution are secured by the construction of your system. Indeed, if we may judge from the excellent quality of fruits grown in the sub-irrigated districts of California, you will be likely to get a much better

FRUIT PACKAGES

Of Every Description

Leslie Boxes and Crates
Hallock Quart and Pint Boxes and Crates
Illinois Quart and Pint Boxes and Crates

Boxes

FOR APPLES, PEARS, MELONS, POTATOES and VEGETABLES

Leslie Crate and Boxes

Baskets

FOR PEACHES, PEARS, PLUMS, TOMATOES, MELONS, and GRAPES

Four-basket Crates for Peaches and Tomatoes
Six-basket Crates for Peaches

Special Prices to Associations and Users of Large Quantities

40-Page Catalogue FREE. Send for it.

So. Haven, Mich. The Pierce-Williams Co., Jonesboro, Ark.

A KALAMAZOO DIRECT TO YOU

WHY not *save money* in your stove and range buying?

Why not get a really *good* stove or range while you are about it?

Here's a Kalamazoo Royal Steel Range—one of the many of the Kalamazoo-direct-to-you family.

It is guaranteed, under a $20,000 bank bond to be *strictly high grade in every respect.*

The body is made of Wellsville blue polished steel—the highest grade steel procurable.

Not an ounce of scrap iron enters into it. The tops and centers are cut and braced in such a manner that we guarantee them against warping for *five years.*

The linings are heavy and the flues and all other parts where it is necessary are lined with *genuine* asbestos, held between two sheets of steel.

The oven is square and large, with a bottom that *cannot* warp or "buckle." The oven ventilation is *perfect*, making it a quick and even baker.

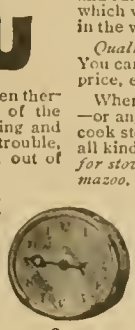
The oven is equipped with patented oven thermometer which gives perfect control of the oven's temperature and makes good baking and roasting an easy matter. It saves time, trouble, and fuel, and is guaranteed not to get out of order.

The hot water reservoir is large; is lined with white enamel and is easily removed for cleaning.

The fire box is equipped with either a duplex or a dock ash grate as desired, and either hard or soft coal or coke or wood may be used for fuel.

It is handsomely finished, all the ornamental parts being heavily nickeled. We do all our own nickel-plating, and *do it right.*

The riveting, the mounting, the finishing, are all done *by hand*, by expert workmen, and we guarantee that there is not a better designed, a better made, a better finished, or a more durable stove or range in the world, than is *the Kalamazoo.*



Oven Thermometer

Quality is our first consideration, and our 32 years experience in building and selling stoves and ranges has taught us *how* to make a range which we can put in comparison with any other in the world.

Quality should also be *your* first consideration. You cannot afford to buy a *poor* range at any price, especially—*and here's the point*—

When you can buy this high grade Kalamazoo—or any other of the Kalamazoo line of ranges, cook stoves, base burners and heating stoves of all kinds—*at a price lower than your dealer pays for stoves and ranges not the equal of the Kalamazoo.* Please read that again.

You get a Kalamazoo, *freight prepaid*, on a 360 days approval test, guaranteed under a $20,000 bank bond, with privilege of returning to us at any time within 360 days, if it shows any faults or defects—and all at a *less price* than your dealer pays for many stoves and ranges not nearly so good.

Here's the secret:

We are manufacturers—actual manufacturers and we sell to you *direct from our factory* at *lowest* factory prices, saving you all dealers', jobbers', agents', and middlemen's profits and commissions.

We have more than 50,000 customers in all parts of the United States. Their letters show that they have saved from $8 to $40 by buying a Kalamazoo direct from our factory.

We will be glad to send you the names of our customers in your vicinity. Let *them* tell you what *they* think.

The Kalamazoo line is *complete*—embracing ranges, cook stoves, base burners and heaters for fuel of all sorts, all of late design, handsome pattern and beautiful finish.

Send for our catalogue.

You will find in it the stove or range exactly suited to your purpose, and you will be able to purchase it at a money-saving price.

Don't you think it a proposition worth looking into? Let us send you our free catalogue and price list. You'll be interested and pleased.

Ask for Catalogue No. 348.

Please Remember:

We are actual manufacturers, not mail order dealers.
We have more than 50,000 customers—all satisfied.
You run no risk, as we give you a 360 days approval test.
We pay the freight.
We make you actual factory prices.
We sell you a stove or range not excelled by any in the world.

Kalamazoo Stove Co., Mfrs., Kalamazoo, Mich.

quality of berry through sub-irrigation than from surface irrigation. You certainly have put your ground into excellent condition for splendid crops by so thoroughly manuring it.

⚜ ⚜

C. J. P., Tecumseh, Mich.—Am looking about for material to cover my quarter-acre of strawberries and have in view some red clover chaff. Kindly advise how this would work as a covering. Does any one ever use tobacco stems for covering? There are two factories here and any amount of stems could be secured.

Clover chaff would make a very good mulching, but would contain much seed, and this would cause endless trouble at fruiting time as well as when cultivating the bed for another crop. Another objection is that clover hulls are so dark as to absorb the heat from the sun's rays and might result in blistering the fruit. We would not recommend the use of tobacco stems as a mulch.

⚜ ⚜

G. T., Tacoma, Wash.—Do you think pistillate varieties will do well here? We have very little wind, and no bees to amount to anything.

The scarcity of bees and the lightness of your winds will have no effect upon your pistillate varieties, provided you properly mate them; and the way to do this is to set one row of bisexuals and two or three rows of pistillates. The order in which to set these rows should be as follows: First, a bisexual somewhat earlier than the pistillate rows, the pistillates to be followed by a row of bisexuals a little later than the pistillates. This system of planting insures a continuous flow of bisexual bloom, with anthers bursting just at the moment when the stigma of the pistillate bloom is most receptive. Nature has provided many ways for carrying the pollen.

⚜ ⚜

J. R. S., Covert, Mich.—What varieties would you recommend for shipping to Southern markets?

We think your idea of growing strawberries in this state for Southern markets is a good one and we are very sure that you can make a splendid success of it After the crop has all been harvested in the states south of us the people just begin to get good and hungry for strawberries, and if you will grow the late varieties, that will come in after the Southern varieties are marketed, you will have the market pretty much to yourself, thus finding it easy to make quick sales at big prices. We believe the best thing for you to do is to set largely of the latest varieties and the best of these are Aroma, Pride of Michigan, Dornan, Sample and Gandy. These are all extra late, and we are quite sure will be just the ones you want.

⚜ ⚜

E. C., St. Francis, Mo.—I find it impossible in the time I have to work to keep the runners cut back during the growing season. Can you give a suggestion, or in other words, have you discovered a quick and easy way to keep the runners from growing?

It is easy to control the runners if you start the work in time by using a roller-runner cutter. This will cut off all the runners that run between the rows, and those that form directly in the row beyond the number you wish to grow may be cut off with hoes and treated the same as weeds. The trouble is that the grower is apt to let the runners become matted before he begins the work of clearing them out.

⚜ ⚜

J. B., Louisville, Neb.—My plants are very thick—too thick, I am afraid. What shall I do—thin them early in the spring, or let them go until after fruiting?

There is nothing now that you can do to rectify the difficulty until after fruiting time, then take a bar shear and throw a

furrow from each side of the row into the center, narrowing down the row to about six inches. After this is done level the soil back into its place and throw enough soil over the crowns to cover them about one-half inch. The plants then will come up through this fresh soil and will make a new system of roots just below the ground and above the old roots.

A. B., Soquel, Calif.—1. I have a fine bed of strawberry plants; all the bloom was picked off in the spring, but I notice some of them blossomed again in the fall. Would you pick these blossoms off? 2. Should I mow the foliage off my plants after they have fruited the first year? 3. When topping them with the scythe is there any danger of cutting them too close?

1. You have followed correct principles by removing the first bloom, but do not take off the bloom that opens in the fall, as the plants have become well established in the soil, and are able to produce a fall crop of berries—something quite frequent in California.

2. You should top your plants just as soon as the first crop of berries is harvested, and immediately they are dry burn over the patch. This should be done a few days after the mowing. If put off too long, the plants will have made a new growth and there will be danger of the fire injuring them.

3. There is no danger of the scythe cutting too closely, as the crowns are protected by the surface soil, into which you would have to cut to injure the plants.

G. E. B., Everett, Mass.—1. What is meant by bisexuals? 2. Are male and female plants separate?

1. Bisexual means two sexes or both sexes; that is, the flower of a bisexual contains both male and female organs, and thus has power to procreate or to of fruit itself.

2. Male and female plants are separated in some varieties. This is true of all pistillate varieties, which possess only the female organs, and depend upon the male element in the bisexual plant for its pollen or fertility.

J. M. H., Lenore, Idaho.—What varieties would you advise setting out to grow berries for market?

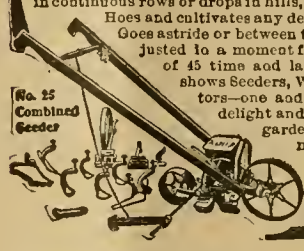
In growing berries for market, a somewhat different selection should be made from that employed in the case of the family garden. What is needed is generally a highly colored berry, one that is productive and a good shipper. There are so many good varieties that fill the bill, it is rather difficult to name the best, but in your locality you could not make

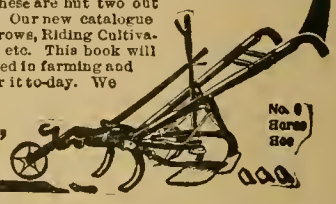
PLANET JR. GARDEN TOOLS

SAVE HALF YOUR TIME

PLANET JR. GARDEN TOOLS

The most successful farmers and gardeners are doing it all over the world today by using the **Planet Jr. Line** of farm and garden tools. And the gain is not alone in the saving of time, for they do the work faster, easier and better than it can possibly be done in any other way. For example, take our **No. 8, Horse Hoe.** It is a hoe and cultivator combined. Has high, stiff steel frame; interchangeable, non-clogging standards; adjustable handles, reversible hoes, etc. A convenient lever adjusts the side beams to fit wide or narrow rows. It is a perfect one horse cultivator for corn, potatoes, cotton—indeed all crops planted in rows. Then again there is our **Planet Jr. No. 25.** It is a Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow combined. Looks like a lot of things to combine in one tool but they are all there and all work perfectly. Sows all garden seeds in continuous rows or drops in hills, 4, 6, 8, 12 or 24 inches apart, at the same time marking the next row. Hoes and cultivates any desired depth, killing all weeds, opens furrows, throws up ridges, etc. Goes astride or between the rows throwing the earth to or from as desired. Can be adjusted in a moment for any work on any crop. These are but two out of 45 time and labor saving **Planet Jr.** tools. Our new catalogue shows Seeders, Wheel Hoes, Horse Hoes, Harrows, Riding Cultivators—one and two row—Beet Cultivators, etc. This book will delight and instruct everyone interested in farming and gardening. Be sure and write for it to-day. We mail it free on request.





S. L. Allen & Co.,
Box 1106O Philadelphia, Pa.

JAPANESE HONEYSUCKLE

This Floral Wonder is the Latest Importation from the Land of the Mikado

Is a sturdy rapid climber and within sixty days after the time it is planted will drape your piazza with a brilliant mantle of green luxuriantly spotted with beautiful white flowers turning to yellow. It blooms constantly—is never bothered with insect pests and in the South and on the Pacific Coast holds its foliage throughout the entire winter season.

The plant is a genuine floral wonder. Its thriftiness, hardiness and prodigal bloom speaks volumes for the skill and plant-loving proclivities of the little brown people of the Occident who 've nurtured and improved this climber for so many years. We have imported a large number of these parent vines from Japan. They take root on this coast as readily as they do in the native clime. If you are fond of beautiful climbers and appreciate something in plants decidedly bizarre and out of the ordinary, try some Japanese Honeysuckle on your porches and fences. You'll be charmed to see how beautiful this plant will make an ugly old fence or shed apppear.

IVY COLLECTION—No garden is complete without Ivy. We have a fine stock of healthy roots. The old favorites Boston Ivy—English Ivy—Kenilworth Ivy—and Variegated Ivy are 25c. per poot or the set of four for 50c.

CLIMBER COLLECTION—We will send you this whole collection of seven climber roots postpaid for $1.00 Japanese Honeysuckle—Kenilworth Ivy—English Ivy—Trumpet Creeper—Japanese Hop—Virginia Creeper—Boston Ivy.

Our shipments are all packed with extreme care. All roots are imbedded in moss and will travel ten miles or ten thousand miles with absolute safety. They will arrive in perfect condition; are ready for immediate planting.

TEAR THIS OFF, MAIL TO CHAS. H. LILLY CO.

SEATTLE PORTLAND SAN FRANCISCO

Enclosed is $.....(in money order, draft, 2c stamps) for which send me (prepaid) items as checked below.

.....Japanese Honeysuckle roots

.....Ivy Collections

.....Climber Collections

Please send me (free postpaid) your Plant and Seed Catalog of 1906.

Name .....

Address.....

"Good Enough" is Not Good Enough

WHEN IT COMES TO STRAWBERRY PLANTS

Only the Best Will Pay

That is Why You Should Set the Kellogg Strain of

Thoroughbred Pedigree Plants

THEY ARE THE BEST

BECAUSE they are selected from the mother plants that have won the world's greatest fruiting record.

BECAUSE they have been scientifically sprayed, which insures you against destructive insects or fungous spores.

BECAUSE they are carefully mulched before freezing, insuring a well-calloused root and perfectly dormant plant. Every one of them will grow if properly set out.

BECAUSE they will produce more berries from one acre than two acres will grow from the "other kind"

YOU cannot afford to give up your valuable land and put a lot of hard work on poorly developed plants just because they are cheap. The cheapest plants are those which have a perfect balance in fruit and foliage---the kind that produce the big paying crops. If you want this kind of plants you must send us your order at once, as our old customers, who have used our plants for years and know the value of our pedigree plants, are ordering heavier this season than ever before, and we are sure that our entire stock of plants, the largest and best ever grown, will be engaged long before setting time.

If you are undecided as to varieties, or do not know how to mate them, our expert will assist you to make the best selection for your soil, climate and particular purpose. Tell us whether you intend them for market or for home use.

R. M. Kellogg Company, 118 Portage Ave., Three Rivers, Mich.

a mistake by planting Excelsior, Texas, Warfield, Splendid, Senator Dunlap, Haverland, Gandy, Dornan, and Sample. This will give you from the very earliest to the latest.

⚜ ⚜

C. C. J., Colusa, Calif.—In examining my strawberry bed December 31 found a number of the plants in bloom. Will this affect my crop at the regular fruiting time?

The fact that your plants have bloomed out of season will not affect results at cropping time, as these blooms come from buds that were backward and did not develop at the proper time. It never occurs to an extent sufficient to weaken the plant. We have had our fields bloom quite heavily in the fall, many of them maturing into berries, and the following summer harvested the largest crop we have ever taken from an acre. As a rule this out-of-season blooming indicates great vigor in the plants.

⚜ ⚜

C. H. B. Nelson, B. C.—Can the Glen Mary (bisexual) be planted successfully by itself, or does it require some other variety—a medium pistillate—to be planted with it?

Although the Glen Mary is a bisexual, some of its bloom is deficient in pollen. It will give good results when set alone, but the yield may be greatly increased by setting such strong pollenizers as Parsons' Beauty, Senator Dunlap or Ridgeway every fourth row. These are all bisexuals; a pistillate will not aid a bisexual; the pistillates depend upon the bisexuals for their fruiting power. But there is no doubt, we believe, but that a deficient bisexual will be greatly aided by being surrounded by other bisexuals of strong pollenizing power.

⚜ ⚜

D. A. S., Cardinal, Ont.—I have about one acre of land along the river. It has good drainage. It was planted to potatoes during the last two years, and it received a good coat of manure both seasons. Should I plow this piece of ground in the fall and again in the spring? 2. What would it cost me to set this acre to strawberries?

1. Potatoes are an ideal crop to grow in advance of strawberries. As this soil has had two coats of manure it should give a large yield of fruit. Where ground is plowed in the fall it is unnecessary to replow it in the spring, unless it be heavy clay soil. But when not replowed it should be chopped up with the disc and harrowed until thoroughly fine.

2 You should put out 7,000 plants on this acre, and of course it will not pay to set any but strong and vigorous plants. The cost for these will depend somewhat upon the varieties selected, and ranges from $3.50 to $8.00 per thousand. One man easily will set this number in from three to four days, if he has the proper tools.

⚜ ⚜

E. B. G., Bazaar, Kan.—I send you in this mail a small box in which I have enclosed a few dead leaves from my strawberry plants for your inspection. This summer and fall some of the leaves looked as if they had frost on them, and as I have never raised strawberries I did not know what it was, but feared it was rust, and ask you to let me know whether that is the case or not and what the treatment for whatever it is, if any is needed.

We have carefully examined the leaves sent us and find that they are affected with mildew and rust. These are fungous growths that spread by spores. They are controlled by the use of Bordeaux mixture which should be applied early in the spring. Bordeaux mixture is not a cure, merely a preventive, which acts on the leaves somewhat as vaccination acts on the patient to keep him immune from small-pox. We start spraying as soon as the plants begin to grow in the spring and continue until fall, and have no difficulty in keeping these enemies out of the fields.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan.

ROBERT S. FOUNTAIN,

Advertising Manager,

47 Plymouth Place, Chicago, Ill.

Subscription Price One Dollar a Year

MARCH, 1906

THE subject for our colored cover for this issue is the farm home of The Strawberry, showing the publication office of this magazine as it looks from the fields which stretch away from it and the handsome park surrounding it. During the summer months that park is a quiet resting place for many visitors who come from far and near to visit the farms and study the methods employed here in the culture of the strawberry. And when the breeding beds are filled with great luscious berries it is a sight to see our visitors come and go, carrying away in the aggregate many bushels of the big fellows, many of which would take the blue ribbon at the world's leading horticultural shows. While we are speaking on this subject, let us invite you and every other reader of the magazine to come and see us. We are sure it will do you good. And just notice that we are offering to that friend who shall send us the largest number of subscriptions to the magazine, above 100, between this time and the 15th of December next, a free round trip to this farm and a full week's entertainment; or a choice of a round-trip to Washington, Niagara Falls or Jacksonville, Fla., just as the prize-winner may prefer.

STUDY your market conditions if you would make a big success of the strawberry business. And don't wait until the berries are ripe on the vines before doing it. Look the field over carefully to discover just what is wanted, how many you can sell of the high-grade berries you produce. Then get your boxes and crates in hand, engage your pickers early so as to be sure of having sufficient help to handle the crop as it matures, get your packing shed in readiness, and then when the season comes on you are prepared to do business and get all there is out of it. Some good folk go ahead and grow splendid crops, forgetting all about the market side of the business, and then wonder why they did not make a larger success of their season's work. There is the cultural side of the question, and there is the market side; both must be given due consideration if real success is to be won.

SEND us your experiences as a strawberry grower, amateur or professional. Everybody whose labor has produced the favorite fruit has something interesting to tell about it. We shall be pleased to have you tell your story, confident that it will help and encourage others. Write briefly and clearly and give the world the benefit of what you have done —the pleasures the vexations, the downs and the ups, of your experience.

ONCE more we take pleasure in calling attention to our advertisers. We are sure you will find them well worth getting acquainted with. They stand for reliability in goods and in methods, and if you will give them a chance they will prove it to your entire satisfaction. It is not always a simple matter to be able to present only the best of folk in our advertising columns, as an incident of the month shows. A very attractive offer of advertising came to us from one claiming to be an extensive nursery and seed man in New England, with breeding farms in Europe for his flower specialties. The electros accompanied the order. We decided 'twere better to look him up before accepting. You will not find his "ads" in The Strawberry because we were advised that he was selling doubtful seeds. No "fakers" need apply for space in The Strawberry.

THE package sells the fruit," is the motto of the Pierce-Williams Co., whose mammoth works at South Haven, Mich., and Jonesboro, Ark., are famous for their splendid products in the way of baskets and boxes, put up for strength and neatness for the fruit growers of the country. All who have engaged in the business of selling fruit will recognize the truth of that statement. If there is any one thing that more than another will stand in the way of the fruit seller it is an unattractive package, and baskets and boxes that are made in slipshod fashion will destroy the appearance of the finest fruit. The Pierce-Williams Co. are situated with especial advantage to two of the great fruit-producing regions of the country, and this fact, combined with the excellent quality of their goods, has resulted in building up a great reputation and a large trade all the country over. The free catalogue of this company will give you many helpful hints and much valuable information.

PUGET SOUND seems far away to the Eastern gardener, and the idea of securing seeds from that land of sunshine and flowers to plant in the regions east of the Rocky Mountains appears at first sight to be rather strange. But when we remember the extraordinary success achieved out there in the production of flowers and fruits and vegetables; when we recall what Luther Burbank, down in California, has achieved for horticulture everywhere, and when we consider the extraordinary display of everything pertaining to horticulture at the Lewis & Clark Exposition last year at Portland —these things well may suggest to us the advisability of testing the quality of the Puget Sound products in our own soils and climate. Chas. H. Lilly & Co., the most extensive growers of seeds on the Pacific Coast have made their initial bow to the Eastern public in the pages of The Strawberry. This is a great house, a reliable one, and their products are of the highest order. Give them a trial if a flower lover, of their wonderful Japanese honeysuckle; if a truck-grower, of the marvelous Lilly's Glory cabbage; if a berry grower, of Burbank's Phenomenal berry, which Mr. Burbank himself declares to be the best berry in the world. And don't forget to mention The Strawberry.

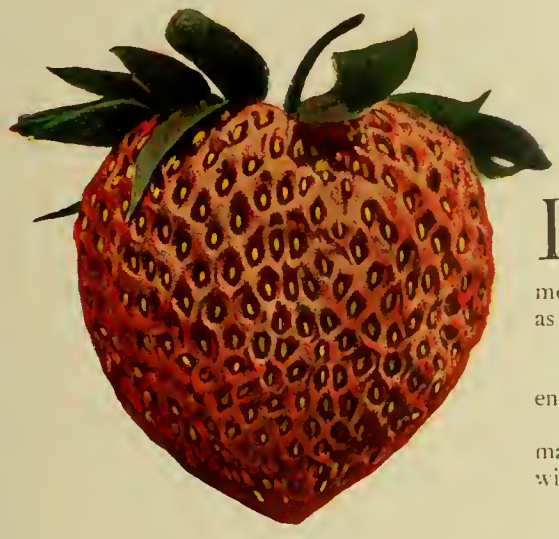
EVERYBODY his (or her) own cracker-jack maker! Isn't that a cracker-jack idea, indeed? And if you had ever partaken of the crisp and delicious cracker-jack made by Clark Potter "the Cracker-Jack man" of Three Rivers, you would begin to understand what a privilege it is to have all one wishes for oneself and one's friends of this delicacy. For it is a delicacy, compounded according to Mr. Potter's recipe, and this recipe he is offering to you at a nominal sum. Having this recipe you may make all the cracker-jack desired for yourself, your family and your friends, and not one but will appreciate such a treat. Write Mr. Potter for his famous recipe. He is a neighbor of The Strawberry folk and we know just what we are talking about when we recommend his cracker-jack.

ONE of the nurseryman's catalogues which has just come to our desk and which presents a handsome face and a valuable interior is the one just issued by W. F. Allen of Salisbury, Md. The modern catalogue has become a real friend to the practical husbandman, presenting the latest and best in the particular lines represented, and giving needed information and advice. Mr. Allen has put out a valuable aid to the horticulturist, and you will enjoy a perusal of his work.

LIKE so many of our good things, the discovery of the Silver King celery was accidental. An Elgin County (Ont.) farmer named Smith grew ordinary celery. One season he had gathered only a part of his crop when winter settled down upon him. In the spring he was astonished to find that some of the abandoned celery was growing up finely. To make a long and interesting story short, Mr. Smith found he had a plant that appears likely to revolutionize the celery industry. Greening Bros., the well known nurserymen. of Monroe, Mich., have bought the exclusive rights in the Silver King, and you should write them for full information. It is claimed for this remarkable plant that it is everlasting and perfectly hardy in any clime, and so prolific is it that four or five plants are sufficient to supply the entire family with delicious celery.

MANY strawberry folk engage to a greater or less extent in the production of corn. To those who do so we take especial pleasure in calling attention to the advertisement of A. T. Doerr & Son of Harvel, Ill., on another page in this magazine. The corn grown by the Messrs. Doerr is famous for its fine quality and great productive power, and a few bushels of such seed as they produce will give larger results than many bushels of a less vigorous sort. Mr. Doerr began the work of breeding corn for seed many years ago, and he has succeeded in producing varieties that are not to be excelled. He makes an attractive proposition; if you are contemplating planting corn he offers you an opportunity to test the value of pure-bred seed corn at so slight a cost that you can not afford to let it pass. Send for catalogue.

Big Money in Strawberries



We Teach You How to Grow Them

DO you know, dear reader, that raising strawberries for market is an exceedingly profitable business? Well, it is, if you know how to do it right. And it is not only a big money maker, but is a very pleasant and healthful pursuit as well, as many of our pupils can testify.

But you must thoroughly understand how to go about it.

You can't succeed in getting all there is in it of health, enjoyment and good hard dollars without proper training.

And to get that practical training and preparation that will make success absolutely certain, you must put yourself in touch with those who are equipped by experience to help you.

Isn't that true?

THE KELLOGG CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE teaches you the way and tells you how to grow big crops of fancy berries and how to pick and pack them for top prices.

We show you how to get more select berries from one acre than two will produce of the "other kind" under the old heads.

We make every detail of the work plain and tell you just when and how to do everything to get the very best results.

We show you how to lower the expense of production and increase your receipts.

We explain in a practical way how large families with small gardens can grow an abundance of choice berries for home use and make money, too.

We prepare the young man for a good paying position.

There is a great call for foremen on berry farms. The demand is far in excess of the supply. We fit you for that work.

Our course of instruction trains the young woman for an ideal out-of-door occupation in which she can make much more than an independent living.

The first person to join this school was a young woman who has won splendid success as a strawberry culturist in Minnesota.

And among our hundreds of pupils are many women who are enthusiasts in the business.

Miss S. M. Pollard, of Woodside, Minn., sends us a clipping from a local newspaper and says that it was through our instruction that her success as referred to therein was made. She says that the 1905 crop was her first attempt at raising strawberries, yet from about eight rods of plants, she had sold on July 19th, 400 quarts and had about 300 more to gather.

The newspaper clipping follows:

> "The largest and nicest strawberries we have had the pleasure of seeing this year were brought to our office by Miss S. M. Pollard, of Woodside. The size of the berries is phenomenal, some of them measuring five and one-half inches in circumference, while the flavor is sweeter and it is more juicy than the western and southern berry."

No other out-of-door employment offers larger opportunity to the enterprising than does strawberry culture, and the field is a wide and open one. No grower is too large and none too small to be benefited by our teachings.

The better you understand your business the more money you can make and with less work.

Now, if you want to know all about our methods, send us your name and address and $1.00, and you will be enrolled as a full member of the great Correspondence School.

And "The Strawberry", our interesting and valuable publication, will come to you each month full of instruction and tell you just what to do in your strawberry field at that particular time, and will keep you from making expensive mistakes.

"The Strawberry" will contain no puzzles, no visionary stories, no imaginary theories; nothing but strictly business instruction, common sense and actual experience from the world's greatest experts. It is the only journal in the world devoted exclusively to the interests of strawberry producers

What We Did for One Pupil

East Jaffrey, N. H., Nov. 6, '05.

R. M. KELLOGG CO.

In the spring of 1904 I ordered 1,000 of your Thoroughbred Pedigree Plants, set them on one-eighth acre of good soil and handled them according to your instructions. I picked off the buds the first year and what do you think I got in return? I picked and sold 900 quarts of nice, big ripe berries, sold them for 15 to 18 cents per quart, making in all $156; that is just what 1,000 plants did for me. I picked and filled standard quart baskets with fifteen berries and can furnish proof if anyone doubts my word. I shall want 10,000 of your Pedigree plants for next spring; can I get them? Yours truly,

ISRAEL VALWAY.

The Strawberry Bed Interests the Entire Family

Don't delay, but write us today. Address

R. M. Kellogg Publishing Company, 118 Portage Ave., Three Rivers, Mich.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

General Offices, Nurseries, Packing Houses and Shipping Station

LOUISIANA, MO.

BRANCHES { Starkdale, Mo. Rockport, Ill. Portland, N. Y. Dansville, N. Y. Fayetteville, Ark. Atlantic, Iowa

Oldest Nurseries in the West
Established 1825

Largest Nurseries in the World
4675 Acres

WE PAY FREIGHT

on $5 orders (one-fourth cash to be sent with order) at prices quoted in our Wholesale Price List, to any R. R. Station in

ARKANSAS KANSAS ILLINOIS MISSOURI
INDIANA NEBRASKA IOWA OHIO

On Orders Amounting to $7.50 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ALABAMA DELAWARE DIS. COLUMBIA
CONNECTICUT INDIAN TER. KENTUCKY
GEORGIA MARYLAND MICHIGAN
LOUISIANA MISSISSIPPI NEW JERSEY
MINNESOTA N. CAROLINA OKLAHOMA
NEW YORK S. CAROLINA RHODE ISLAND
PENNSYLVANIA TENNESSEE WISCONSIN
VIRGINIA TEXAS W. VIRGINIA

On Orders Amounting to $10 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ARIZONA CALIFORNIA
COLORADO FLORIDA
IDAHO MAINE
MONTANA MASSACHU'TS
NEVADA N. HAMPSHIRE
OREGON NEW MEXICO
UTAH NORTH DAKOTA
VERMONT SOUTH DAKOTA
WYOMING WASHINGTON

We make no charge for Boxing and Packing. We Do NOT pay freight on orders amounting to less than specified, nor unless one-fourth cash is received with order, nor on shipments by express.

GRAPE VINES—In order to carry out our policy of furnishing only the BEST, we maintain a nursery at Portland, N. Y., in the heart of the famous Fredonia—Chautauqua Grape Belt, which produces the finest vines grown in the U. S. We are headquarters for all the leading Commercial sorts.

WARNING—We are sole owners of the names Black Ben, Champion, Delicious, King David and other leading commercial apples, Gold plum, Stark-Star grape, etc., all of which are our Trade-Marks, duly registered in the U. S. Patent Office under the new law approved Feb. 20, 1905. Planters are warned against infringers offering trees under these names or trees claimed to be "just the same." We offer the GENUINE at prices as low as GOOD trees can be produced. Wise buyers will take no chances.

STARK TREES SUCCEED

WHERE OTHERS FAIL—

BECAUSE, three generations of Stark Nurserymen have made the production of the BEST trees their life study, their life work;

BECAUSE, Stark Trees are produced under an exact science from the time the seed are selected until the tree is delivered carefully packed for transportation;

BECAUSE, in selecting buds and scions only healthy, vigorous, highly prolific trees of the best strains are used as parentage;

BECAUSE, a tree grown with all conditions favorable has high vitality and will withstand climatic rigors and unfavorable soil even better than the stunted weakling propagated in just such uncongenial surroundings;

BECAUSE, having eight nurseries in five states, each sort is grown under the most favorable conditions of soil and climate, resulting in hardy, healthy, thrifty trees that LIVE and BEAR;

BECAUSE, we are constantly on the watch, not only for valuable new varieties of fruits, but for the best strains as they are developed. As soon as an improved strain is found it is propagated and the inferior discarded;

BECAUSE, only THE BEST roots, scions, soil, location, labor, cultivation, pruning, digging, storing and packing enter into the production and handling of Stark Trees. We ask for your orders

BECAUSE, Stark Trees have given satisfaction in every state and territory for 80 years, with the result that Stark Nurseries have constantly grown (the only true test of merit) until they are now the LARGEST IN THE WORLD. We are not "here to-day and gone to-morrow."

APPLE SEEDLINGS—We offer for the coming season's trade several million that, owing to favorable season, are EXTRA FINE. They are Iowa grown from Vermont seed and our own experience has demonstrated that they are superior to all others we have used. Also a fine lot of Catalpa, Black Locust, Mahaleb Cherry, French and Japan Pear Seedlings, Plum Stocks, etc., Vermont Apple Seed.

STARK FRUIT BOOK "WORLD'S FAIR FRUITS" shows in natural colors and accurately describes 216 varieties of fruit. Send 50 cts. and we will send the book post-paid and a REBATE TICKET permitting its return within 60 days when the 50 cts. will be refunded. Or the Rebate Ticket is good for $1 part payment on a $10 order for nursery stock.

Send for Wholesale Price List, Order Sheets, Descriptive Circulars, Half-tone Views, etc.—FREE. WE PAY CASH Weekly and want MORE Home and Traveling Salesmen. Address, STARK BRO'S NURSERIES & ORCHARDS CO., Desk 11, Louisiana, MO.

April 1906

1:4.

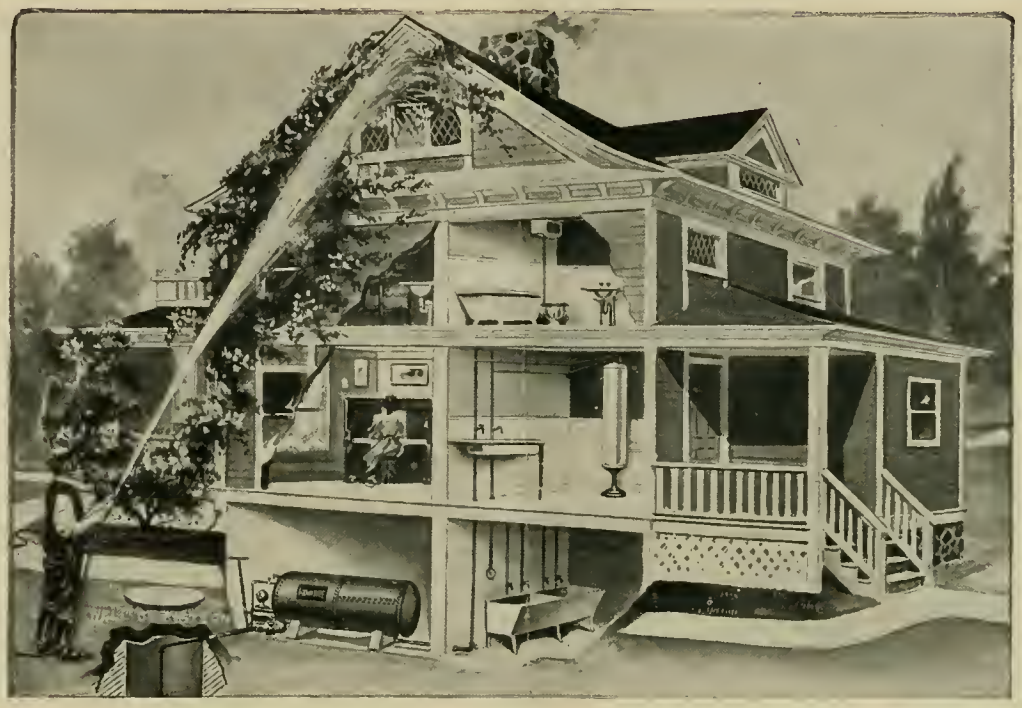
THE STRAWBERRY

"The Lord might have made a better thing than the Strawberry---but He didn't."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN



Water Supply for Country Homes

and Small Fruit Irrigation

IF you live in the country there is a way for you to enjoy *all* the comforts and conveniences of *a city water supply*, without a penny for water tax.
It is accomplished by the **Kewanee System.**

With the **Kewanee System** you get even *more* than city service, because, in addition to every benefit the latter affords, you may have—

—*Soft water* in your bathroom and laundry.

* * * *

The old-fashioned gravity system meant pumping water *up* in order to get it *down* again.

Now, to give the necessary pressure for fire protection and service, the elevated tank must be located on top of a tall tower. This is expensive, unsightly and unsafe.

The water freezes in winter, becomes warm and stagnant in summer, and repairs are a big item of expense.

The attic tank doesn't give sufficient pressure for fire protection.

Its weight is apt to crack the plastering, and when it leaks (as it is pretty *sure* to do) your house is flooded. Just one such expensive accident may cost you many times the price of a **Kewanee Outfit.**

—Which *cannot* flood the house because the tank is resting on *solid ground*, where it can do no damage.

The installation of a **Kewanee Pneumatic Tank** and **Outfit** in the *cellar* (or in the ground) means

—Plenty of pure, fresh water,
—Cool water in the summer,
—No freezing water in winter,
—Absolute protection from fire,
—Decrease in insurance rates,
—A plant that will last a lifetime,
—No expensive repairs,
—It solves the country water problem completely.

The **Kewanee System** will take care of *all* your needs,—for home, garden, lawn, stables, poultry houses, etc.

* * * *

It ought to make strong appeal to the man with strawberry beds. You know it is important that strawberries have *water at just the right time.* You may want to sprinkle or you may want to lay an open hose at the head of the row. Take your choice; a **Kewanee System** enables you to do either.

What's true of strawberries is true of flower beds, rose bushes, garden vegetables. You can't carry water and reach all these with a sprinkling pot.

With a **Kewanee Outfit**, you just pull the hose out to the highest point you want to irrigate and turn on the water. It will do the rest.

Mr. I. Newton Swift, Ypsilanti, Mich., is one of thousands who are using Kewanee outfits for general purposes. A late letter tells of the service he is getting from it. "A year ago I had your **Kewanee Water Supply System** installed on my farm of 240 acres. The tank is in the cellar of the house and supplies water for 75 cows and young stock, a dozen horses, 60 hogs and 500 chickens. It affords excellent fire protection for all the buildings, with an average water pressure of 40 to 50 pounds. It gives me pleasure to recommend this system, because it is bound to give complete satisfaction."

Here are also letters from other users which speak for themselves:—

H. I. Spafford, North Bennington, Vt. "It **works perfectly satisfactory.** It does all you claim for it and more too. It furnishes plenty of water to bath room, hot water boiler, lavatories, kitchen sink, and outside sill cock for watering lawn and for fire protection."

E. T. Crawford, Augusta, O. "Equal to any city water works." Rev. J. Wilbur Chapman, New York. "Perfectly delighted."

U. R. Fishel, Hope, Ind. "My **Kewanee System** is giving splendid results."

* * * *

Our Kewanee Outfits are *complete.*

Not an engine only;—which in itself cannot give you a water supply, nor a tank only, which is useless unless you have some form of pumping power

—But we furnish the *whole* thing,—*a complete system*, of water supply.

Our engineering department is prepared to solve your water problem,—no matter how difficult that problem may now appear.

Kewanee Outfits are made in sizes, suited to the smallest cottage or largest building,—or group of buildings.

We guarantee every **Kewanee Outfit** to give *perfect service.*

Send for catalogue No. 15 giving names of users in your state—free if you mention this paper.

KEWANEE WATER SUPPLY CO.

Drawer R. KEWANEE, ILLINOIS

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 4 Three Rivers, Mich., April, 1906 $1.00 a Year

ARGUE against it as we may, the fact remains that with the increasing tendency to specialization in agriculture there is in some sections of the country a disposition to give up even the family garden on the farm. And this is not so strange when we consider the growing scarcity of farm labor. However, we must take things as they are, and the purpose of this article is to suggest that in every farming community some good strawberry grower might find a home market among his farmer neighbors if he set about it to grow the sort of fruit those neighbors wish to have served them, and always delivers fresh, sweet and inviting berries. This hint is worthy of consideration by our friends who have a small acreage in a community where for the most part farming is done on an extensive scale.

Take it in the corn-belt, where farmers are engaged "from early morn till dewy eve" in running the machinery of their extensive plantations—machinery so expensive that they cannot afford to let it lie idle, and crops so sensitive to conditions that neglect at a particular moment may mean the loss of thousands. How can they afford the time to look after the garden patch? This is what they ask you when you talk to them of their neglect—and how can you answer it?

And the dairyman, busy with the thousand details that go with the modern dairy, with its machinery, its costly cows, its sanitary requirements and its daily commercial calls. It isn't much like it used to be when every farm-wife made her own butter and something over for the people of the nearby town. The towns have grown into cities, the cities into metropolises, and these aggregations of urban folk cry for milk and cream and butter, and eggs, not by the wagonload, but by the trainload daily.

None should be more glad to be in this progressive march than the farmer. None other has had so many advantages come to him in one way and another during the last quarter of a century as has the farmer. Invention, discovery, research; science, art and literature; government itself—all have combined to aid the advance to higher things and broader living for the farmer. Isolated from their neighbors by miles of forest or broad sweep of prairie; far from society's charm and uplift, our fathers struggled with primary things to bring order out of chaos and create productive homes where the wilderness had for ages claimed everything as its own. We of this generation are beginning to enjoy the rich things of earth that come to the farm as well as to the city home. It takes no prophet to see that our sons are to have them at their full.

Consider the work of the Department of Agriculture, of the Experiment Stations and the Agricultural Colleges in relation to the art and science of soil culture and animal husbandry. None may consider it fully, for the achievements are too vast and too complex for one mind to grasp it all. Consider the material and moral significance of rural-mail delivery. Consider what it means that thousands upon thousands of miles of electric railway now penetrate the rural districts of our land. Consider what it means that there now are entire libraries composed of agricultural works that appeal to the most practical of farmers and that are aiding to revolutionize and improve agricultural methods and life in the farm home. Consider the nature of the modern agricultural magazine, with its artistic and suggestive and helpful illustrations and articles on timely themes of highest practical interest.

"It is a condition, not a theory, that confronts us," as our only living ex-president was wont to say. What shall we do with it? Why, meet it, of course. If it be the law of socio-economics, and it appears to be, that specialization is a mark of progress—is of itself progress—it were worse than idle to stand in its way. And let us not only refrain from interfering with the onward and upward march of things, but let us join the noble procession and give to the movement our very best brain and brawn, confident that if we do so we shall ourselves advance.

W. G. Moore, of Quincy, Mich., in the Rural Advocate says: "Farmers now-a-days are so busy, owing to the scarcity of help, that they had rather buy garden truck than try to raise it. Some of them drive several miles to buy of me." Mr. Moore's case is not an isolated one. The social and industrial changes of which we have spoken is producing many instances of the sort to which he refers. Mr. Moore is doing well to encourage his neighbors to increase their calls upon him by giving them good service, developing a taste for better things and a demand for lots of them, and making it possible for the busy farmer to look after his own specialties and at the same time enjoy some of the pleasures demanded by his social nature. And there is no other part of his nature which the farmer should more sedulously cultivate than his social side. We repeat, let us make the best of this condition,

AFTER examining carefully and with much delight the January and February numbers of The Strawberry, I am perfectly willing heartily to endorse all the good things which I had heard about the magazine. It is a handsome, a beautiful, thing. Mechanically it seems beyond criticism. ¶You also have hit upon the inspirational way of putting things. I like that. It is important that the reader be inspired and quickened as well as instructed and entertained. Words hot from the heart of a practical man who loves his work are sure to help all who read or hear them. ¶Even if I were quite resourceful as a publisher or editor, I do not believe I could offer you any suggestion that would make The Strawberry better than it is. But like a Stradivarius violin, it doubtless will grow better as it ages; at any rate, I shall hope to see it grow larger and deservedly prosperous.

DEWITT C. WING.

Chicago, Feb. 27, 1906.

Mr. Wing is on the staff of the Breeder's Gazette

COPYRIGHT, 1906, BY THE KELLOGG PUBLISHING CO.

and let us who are in the business of growing strawberries see if we may not develop a home market in our rural neighborhood, if we live and work in such a neighborhood: take to those about us the best berries our science and skill can produce. There is an opportunity here, only awaiting enterprise to develop into something really important and splendid.

How to Get Your Own Prices for Strawberries

By Frank E. Beatty

ONE of the most pleasant features of the strawberry business is during fruiting time when we can go out into the field and see the vines laden with big, red, luscious berries; and if proper arrangements have been made for marketing this big crop of fruit, the grower may justly feel proud. To know how to grow big crops of fancy strawberries and market them at a big price is a science, and when a grower has mastered this latter and very important feature of the work, he well may be called an expert. There is no profit in a big crop of berries unless you do know how to sell them for what they are worth, and no one on earth knows better what it costs to grow a strawberry than the producer. That is why the grower should make his own price, and if his berries properly are graded and honestly packed it will be no trouble to do this.

We get a great many letters from growers complaining that the grocers in their particular towns want fancy berries, but are not willing to pay any more for them than for common stock. The proper way to treat such dealers is to send your berries to some other market, willing to pay what your fruit is worth. The merchant has no more right to set the price on your berries than you have to fix the price for the sugar you buy from him. And I have had some experience along this line myself.

When I first started my fruit farm at Covington, Ind., I shipped my berries on consignment to one good grocer each in several neighboring towns, and to one or two of the best dealers at home. My berries were graded and honestly packed; the top layer of each quart box was placed with stems down, and they certainly made a handsome appearance. No one could possibly take a peep at them without longing for a taste. Each dealer's customers, and many more who never traded at their store before, flocked in and bought the berries by the armful. These merchants would pat me on the back and say: "Frank, you are 'it,' and you certainly know how to grow and pack fancy berries to make people hungry." Letters would pour in from all my customers, and every letter was chock full of taffy and high compliments about *Beatty's celebrated berries*. Letters came from other merchants who were not getting my shipments, but wanted to get the sale of these berries because their customers were calling for my brand.

Well, of course, these pats on the back and the letters made me feel mighty good, but when the statement of sales and the checks came, the figures representing prices did not look so good to me. After the last shipment was made that season, all the dealers wrote their regrets that these berries could not continue to come the year 'round, and ended up with a "P. S. Put me down for your dealer in this town for next year. Be sure and don't forget me." It was right there I discovered that to know how to grow big crops of fancy berries was not the whole thing in the berry business; so I started to outline some plan whereby I would have some say when it came to naming prices, and when the next spring opened up the prospects for a fine crop of choice berries were very flattering.

One day while out in my five acres of strawberries, pulling some stray weeds which were intruding on the preserves of the berries, I resolved that no man was going to have any say in naming the price on this promised crop except myself. A letter was formulated something like this:

Mr. Grocer,— Dear Sir:— My berries this year are going to beat all records, and you can safely promise your berry-hungry customers that it will not be long until they can tickle their palates with Beatty's celebrated strawberries; but be sure and tell them that they will have to pay 15 cents per quart or two quarts for 25 cents this year, because Beatty says so. As I am the producer of these berries and know just what it costs to grow them, I am the only one who can intelligently name the selling price. I will pay you 15 per cent commission for selling my berries, and also will pay the express.

I must admit that both myself and wife were a little nervous until we received answers from these letters, fearing that our dealers might balk at these seemingly high prices, but in a few days the replies began to reach us, and every last dealer said:

"Let your berries come; we will abide by the law."

"Shake, old boy," says my wife.

"I told you so," says I.

Two happier people you never saw, because we had won our point and felt sure that we were going to make some money.

The berries were all I claimed for them, and the dealers found it easy sailing to get my prices, which were almost double what they brought when the merchant set the price. If any of their customers found fault with the prices, the dealer simply told them that he had no control over the price, and that he must follow Beatty's rules or he could not get the berries at all.

And the best of all is the fact that these dealers stuck by me from year to year. One season when berries were a partial failure in some sections, I put the price of my berries up to 17½ cents a quart and got it without a word. There is no reason why any grower cannot do this same thing if he will stiffen up his back bone and demand his prices. Of course, it may take grit to do this, but if grit helps to make hens lay eggs, why won't it make the people lay down their twelve or fifteen cents for a quart of fancy berries? It will if you furnish the right kind of berries—with the grit!

Weeding the Fruiting Bed

WEEDS and grass are almost sure to put in their appearance in the fruiting bed, and unless something is done to destroy them there is going to be trouble. A strawberry plant is laboring under too many disadvantages and can not do its best when compelled to associate with any of the weed family. Just before the plants bloom is the best time to remove these intruders, but never work among them when the bloom is open, as there is danger of destroying or interfering with pollenation.

A good and quick way to get these weeds out is by paying good boys a fixed price per row for the work. The price will depend on the length of rows and the number of weeds in them. Directly after a rain they will pull easily. If the ground is not wet then a sharp hoe can be scraped under the mulching, cutting everything off just under the surface.

It is easier to get pickers when everything is clean, and they can do much better work than could be done when wading through weeds and grass. Then the berries will dry quicker after a heavy dew, permitting the pickers to get to work earlier in the morning, and the grower thus may get his fruit to market fresh for dinner.

But the greatest advantage in having the plants free from all obnoxious weeds, is in the saving of moisture and soluble plant foods which will all be used to good advantage in developing the crop of berries.

Two crops of anything can not be successfully grown on the same piece of ground at the same time any more than two pigs can be fattened on the same amount of grain that is required for one. In a case of this kind both pigs would be kept thin by fighting for their share, or the weaker would have to succumb to the stronger. Another advantage in having your field of berries free from weeds and grass is that it presents a much better appearance to those who visit your farm during fruiting time; and if you are selling to family trade, the more visitors you have at picking time the more berries you will sell in the field or from your packing shed.

CULTIVATING NEWLY-SET PLANTS ON A COMMERCIAL STRAWBERRY FARM

Springtime Strawberry Suggestions

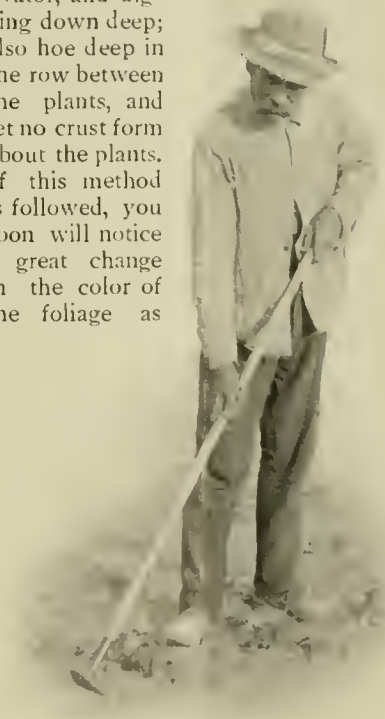
SPRING is here, and it is but a short time before all strawberry growers will be deep in the problems of marketing their crops. We do not know but the best thing to do is to take a "nerve tonic" sufficiently strong to give you courage to stand up for your rights and compel a high enough price for your fruit to give you a fair profit for your year's work. We don't believe in asking too high a price, but on the other hand you have a right to get a fair return for all that you have done, and something over as a nest egg.

However, you have your responsibilities, and among the first to be considered is this: The production of such fine berries, so tastefully packed in boxes so generously filled as to merit the good will of everybody and make them willing, aye, glad, to pay the top market prices for your product.

MUCH depends on setting some varieties on certain grades of soil to insure best results. For instance, if low, damp soil, it should be set to late varieties. It would not be safe to set the extra-early kinds here, because they would bloom so early that there would be some danger of frost injuring the crop. Most any variety will do equally well on level or high land.

For a piece of land sloping to the south, extra-early varieties would be most profitable, as the sun would strike it most of the time and would force the berries to mature for extra-early market. A northern slope will retard ripening and should be set to late varieties to catch the late market.

IN some seasons, climatic conditions are not entirely favorable to plant growth, and the plants will lag or become inactive. When this occurs, the best thing to do is to double up on your cultural methods, like the doctor does with a patient; if one pill won't do, give him two. There is nothing that will boost a plant like judicious cultivation—getting between the rows with a five shovel cultivator, and digging down deep; also hoe deep in the row between the plants, and let no crust form about the plants. If this method is followed, you soon will notice a great change in the color of the foliage as well as in the growth of plants. Cultivation opens up the pores of the soil and arouses the bacterial germs to greater activity.



HOEING is easy if the hoeman practices standing in an easy position. Do not stoop over and hack the soil, but stand erect, place the blade of the hoe about three feet ahead of you, then press down lightly with left hand, or whichever hand you keep forward on the handle; now draw it through the soil toward you and the soil will fall back over the blade into the cut, leaving a perfect mulch. When working near the plant, give the hoe a circular motion, and cut around plants close to the crown, but do not go more than half an inch deep around the plant. Merely cut the crust. You may hoe deeper in dry weather than when it is wet, because the roots go deeper, searching for moisture, while in wet seasons the feeding roots work nearer the surface, as the soil there is more easily penetrated.

If this does not start the plants to moving, there must be some enemy feeding upon the roots. This generally may be discovered by digging the plant up and making close examination; but in nine cases out of ten, the inertia of the plant is due to inactivity of bacteria, and all that is necessary is to exercise the soil, which will assist the digestive organs, so that the soil will give up its supply of plant food.

The trouble with some growers is that they give up too easily. If the plants do not start off with a jump, they stop working them, laying the blame to poor plants. We have in mind a certain individual in this state who sued an Eastern nurseryman for damages because his plants did not produce a big yield of choice berries. When on the witness stand he was asked if the plants had been given good care. His reply was: "Yes, sir, I cultivated them twice and hoed them once." It is needless to say that the jury, which was made up of twelve good farmers, did not give this fellow damages. Strawberry plants that innocently fall into such unappreciative hands as this have our sympathy.

STRAWBERRIES never should be picked when wet with dew if they are to be shipped or held any length of time before used. Berries picked when perfectly dry will hold up and keep their natural color much longer than if picked when the dew is yet on them. If you would get your fruit on the early market, they should be picked, packed and crated late in the afternoon, and then stored in a dry, cool place until morning. The crates should be covered so as to keep the air from coming into direct contact with the berries. If berries are picked when the vines are wet with dew, they will mould and sour within a few hours, and the fruit will not retain the bright

PACKING STRAWBERRIES READY FOR SHIPMENT

Note that the team drives into the packing house. The wagon is loaded, only waiting for the last few crates to start with the last load for the day. This is a very economical plan

glossy appearance they always have when the strawberries are picked perfectly dry.

Another serious objection to picking before the dew is gone is that the pickers get so wet that it often results in illness, or they will get tired and quit, leaving the proprietor with his crop of berries to spoil on the vines. Of course, there are wet seasons when it is absolutely necessary to pick the berries wet. In seasons of this kind it is rather difficult to get big prices, because the fruit must be rushed to the consumer at the earliest possible moment.

We warn the berry grower to pick no fruit of any kind when it is the least bit damp from any cause. But when conditions will not permit of doing things the right way, then do the next best thing. Like the father who advised his son to never cheat, but, rather than to be cheated, to cheat a little, we say, never give your customers berries that were picked wet, but rather than let your berries rot, pick them wet.

THERE is no question but it pays to pack berries before placing them on the market. If the berries have been graded in the field by the pickers, putting the fancy fruit in quart boxes separate from the second grade, the packing process is an easy job. All that is necessary is to place the top layer attractively If the berries are round in form, they should be placed with stem-ends down which will show only the top ends of the fruit, but if the berries are long, like Haverland, Lovett or Parker Earle, they will present a much better appearance laid on their sides, putting the glossiest side up. This method not only shows the berry to best advantage, but also enough of the green calyx, which adds to their beauty.

Small berries look most attractive when top berries are placed in rows with stems down.

Several spays of leaves placed on top of each crate after the quarts have been placed in it gives the packing a finished appearance.

When packing, do not press the berries. Simply lay them in place, and they should be handled carefully so as not to bruise them.

IT is an easy thing to get in the wrong way of doing things and there are some don'ts which are well worthy to be considered at this time. Here are ten commandments we all may with profit paste in our hats for occasional reference:

Don't set out your plants until your soil is made perfectly fine, and if manured see to it that the manure is thoroughly incorporated with the soil.

Don't stick the tips of the roots in the ground, leaving the crown and part of the roots exposed.

Don't set your plants on a ridge; if you do the soil will settle away from the roots.

Don't set plants in furrows; for then the dirt will wash down and smother the heart leaves.

Don't stick your plants down between clods or in clumps of manure.

Don't work a minute in your patch when the ground is wet enough to pack.

Don't allow weeds and grass to take the land given over to the strawberry bed.

Don't let your plants crowd each other.

Don't throw dirt up against the plants when cultivating.

Don't cultivate the plants in a half-hearted way. Scientists tell us plants have sense and know when they are well treated. Don't go deep or close enough to the plants to cut the roots.

THAT the position of The Strawberry in the matter of advertising only those lines of business that stand for uplift and benefit, and permitting no man with a scheme to work or an axe to grind not harmonious to the public welfare to invade its advertising columns, is appreciated, we have many substantial evidences. We take pleasure in quoting from a letter received from A. M. Grecian, of Flatrock, Ind., in which he says: "I feel sure that The Strawberry will be a good advertising medium, and I admire the honest, straight-forward course you are pursuing. Too many business concerns are run simply for the 'almighty dollar,' but I am glad it is possible to do an honorable and pleasant business at a fair profit and at the same time be a benefit to mankind in general. I especially admire your method of shutting out all un-

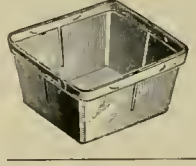
Tufts' Sectional Crate

Neat in Appearance
Well Ventilated
Quarts can be Well Filled, Yet
No Mashed Fruit

Displays fruit to best advantage. Especially adapted to the local market. Investigate.
Catalogue Free

Elmer G. Tufts, Aurora, Indiana

Fruit Packages of all Kinds



Before ordering your supplies write for our **Descriptive Catalogue and Price List.**

BERLIN FRUIT BOX CO.,
Erie Co. Berlin Heights, Ohio.

Webster Basket Co.,

Manufacturers of the
BEST WIRE-SEWED BERRY BASKET ON THE MARKET
Get our Catalogue and Price before ordering elsewhere

WEBSTER BASKET CO.,
Box 40. WEBSTER, Monroe Co., N. Y.

Berry Baskets **Quarts, $3 per 1,000**
Hallock's Cups, Hallock's Boxes, Crates, Etc., in stock.
Send for List. W. D. Soper, Jackson, Mich.

reliable advertisements." Like the other advertisers we present this month, Mr. Grecian is one whom we take pleasure in introducing to our large and growing circle of Strawberry folk.

That Family Berry Patch

NOW or never, at least never so far as this season goes. Soft southerly gales and April's weeping eyes tell us that spring is here, and it warns us that we must get into action if we are to have that long-anticipated, long-promised, long-hoped-for, strawberry bed in our own back yard, growing big, red, juicy strawberries, our very own and thus sure to be bigger and sweeter and fresher than any we might secure anywhere else in the wide world.

It's astonishing how far away spring seems, when we are sitting about the glowing hearth, making cracker-jack and spinning tales of the past or dreaming dreams of future triumphs. Then, all of a sudden, before a fellow has time to think twice, the snow is gone, the frost is out of the earth and the gentle showers and warm sunshine have worked a miracle more marvelous than any wizard with his magic wand may ever dare to think of doing, and, presto change!—Spring is here, garbed in her loveliest of costumes and with smile so bewitching and so sweet that all mankind do her homage and take new hope and courage in her royal and inspiring presence. And here she is, in this blessed year A. D. 1906—but where is that family strawberry patch?

Well, you'll get a few more days of grace if you don't postpone it any longer, for there is time yet in some very extensive portions of the country to get in the vines. First thing you do, decide just where you will locate the patch. Very important that, because you will want them near the house for your own convenience, and, shall we say it?—to discourage those help-themselves fellows to whom a strawberry patch is a temptation all too great to be withstood. A word to the wise is sufficient.

And having the patch decided upon, the next thing to do is to put the soil into condition for the reception of the plants and for their development into splendid fruit-bearing power. First there must go over the entire surface a good heavy dressing of manure—it doesn't matter whether it comes from the cow-stable or the horse-barn or the chicken-coop—any will do the land good and store it with the plant food upon which the vines must feed and grow and produce big crops. This must be well worked into the soil before the plants are set.

A PERFECTLY PACKED BOX OF BERRIES

Then comes thought of the arrangement of the plants. As you are to have only a family patch, you will cultivate with the hoe. This will enable you to place the plants closer together than if you were engaging more extensively in the business and contemplated using machinery. However, you musn't crowd them, for the strawberry is condensed sunshine and air in part and requires lots of both to do its best. Suppose we say that the rows should be thirty inches apart, and that the plants be set fifteen inches apart in the row. This will give you ample room to work in and allow air and sunshine to reach the plants at all points.

This brings us to the plants themselves, for, having determined on the size of your plot and the number of rows and the number in the row, you will know exactly how many to order. Need we urge that you get only the best? We think not; for folk who have the good taste to grow their own strawberries are sure to have the good sense to go about it in the right way. But we warn you that you must not longer delay ordering the plants if you would have those which will give you returns worthy the name. And having good soil and good plants and giving them good cultivation, you will realize the high value and intense delight of having on your own vines, as a result of your own efforts, an ample supply of the most delicious of fruits in the very best form possible to secure them. No other thing in horticulture compares with it; the cost is nothing, and the pleasure immeasurable. And there is a moral value in thus doing for yourself in these matters that may not be too highly estimated, and high physical value in coming in contact with mother earth and in the fine exercise of the body it involves. We could do no higher service to the world, both town folk and rural folk included, than to impress upon all both the joy and the gain of the family strawberry patch. Don't postpone action another day. Get to work, for, as we have said, 'tis now or never.

HERE is a note from the breezy uplands of the inter-mountain West, and it is so full of enthusiasm and good cheer that we pass it along that others may catch its hopeful spirit and be renewed and strengthened for the work that lies before them. The writer is J. S. Bonham, of Rigby, Idaho, a subscriber to The Strawberry, and one who knows an opportunity when he sees it. He says: "If I can get a first-class man to help me I shall do a big business here in the

strawberry line. I got 155 cases from one-fourth of an acre. I never found such soil as we have here I was raised in Wisconsin where the soil is good, but this beats anything I ever saw. There are few weeds to contend with and no pests at all. If some energetic young fellow will come in with me here we have every opportunity to make a mint of money out of strawberries." Such a wide-open invitation as that ought not remain unaccepted very long, surely!

Strawberries in North Dakota

IT is a well-known fact that strawberries thrive and yield abundantly in Alaska, in the very shadows, as it were, of the mighty glaciers. And one of the families of the strawberry plant is called the Alpine because it abounds in the higher altitudes of Switzerland. Yet many intelligent people persist in doubting the possible success of strawberry culture in the Dakotas—a doubt every year dispelled by the abundance and fine quality of the berries produced in both of these states.

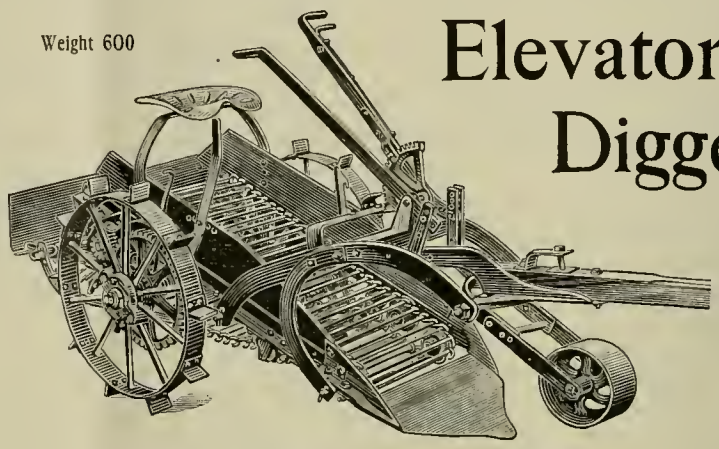
This question was interestingly treated upon in the recent meeting of the Tri-State Growers' convention held at Fargo, N. D. The three states included are Minnesota and North and South Dakota. In that convention Fred Heath of Fargo, made an interesting address upon his experiences with strawberries, in the course of which he said:

"The question often is asked, Can strawberry culture in North Dakota be made a successful industry? Is our soil and climate adapted to the raising of this delicious fruit? Is it a crop that can at all be depended upon? These were the questions on which I wanted light and as I didn't want to throw good money after bad I decided that the experience of the college [North Dakota Agricultural College, which is located at Fargo] should be the guiding star to determine my course, and so I waited and watched and waited. In the meantime to my certain knowledge the college had raised four good crops of strawberries thus giving proof enough one would think to convert any doubting Thomas. At any rate, I made up my mind to throw aside my pessimism and get down to doing something."

Mr. Heath was met by a cold and wet spring, which resulted in giving him something of a backset. But he evidently followed correct cultural methods, if we may judge by results secured from his acre and a half of plants. He says:

"We commenced harvesting our crop about June 28, the harvesting lasting until July 20. My crop yielded about ninety crates per acre or going a total of 135 crates which sold for $480. The fruit was large, solid, attractive and of excellent flavor. I do not think that any

Hallock's Two-Horse Elevator Digger



PATENTED AND PATENT APPLIED FOR

Potato Growers! We hear that our competitors' agents are defaming our O. K.

Well, we seek a better acquaintance, and will be pleased to enter a field contest anywhere east of the Mississippi river on condition that each and every competitor shall place $100 in the hands of the owner of the field, to be awarded to the competitor adjudged as having the highest degree of merit by judges chosen, one by each competitor, and three other men acceptable to all competitors.

WHO WILL ARRANGE FOR SUCH A CONTEST?

Guaranteed as Good as the Best

D. Y. HALLOCK & SONS, Box 842 YORK, PA.

We have a Rich Field for Agents

Planet Jr. Garden Tool Quality.

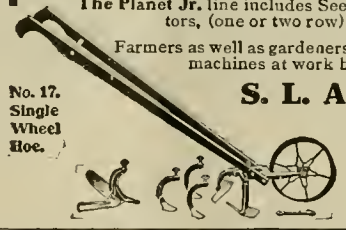
Half a million users regard the Planet Jr. line as the most practical, durable and dependable garden tools made. They stand the test of time, because "quality" is the Planet Jr. watchword. They wear well and give perfect satisfaction wherever used.

Planet Jr. No. 17 is a particularly valuable tool. It is the best of our single wheel hoes, carefully tested by practical men and the latest approved pattern, with the greatest variety of tools we have ever offered. Frame is strong and convenient, having a quick change device which permits tools to be changed without removing nuts.

Planet Jr. Harrow, Cultivator and Pulverizer is a great favorite with strawberry growers, market gardeners and farmers, because the twelve chisel shaped teeth do such thorough, fine, close work without throwing earth on small plants. The pulverizer used with the lever wheel enables the operator to set the tool exactly to any desired depth.

The Planet Jr. line includes Seeders, Wheel Hoes, Horse Hoes, Harrows, Riding Cultivators, (one or two row), Beet and Orchard Cultivators, etc., 45 in all.

Farmers as well as gardeners need our 1906 book, which fully illustrates the machines at work both at home and abroad. Mailed free.


No. 17. Single Wheel Hoe.

S. L. Allen & Company, Box 1106D, Philadelphia, Pa.

12 Tooth Harrow, Cultivator and Pulverizer.

33 Years Selling Direct.

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.

No. 647. Top Buggy. Price complete, $40.00. As good as sells for $25. more

We are the Largest Manufacturers in the World selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large free catalogue.

No. 331. Canopy Top Surrey. Price complete, $65.50. As good as sells for $25. more.

ELKHART CARRIAGE & HARNESS MFG. CO., ELKHART, INDIANA.

finer berries were shipped into Fargo during the entire season, even from the Hood river country.

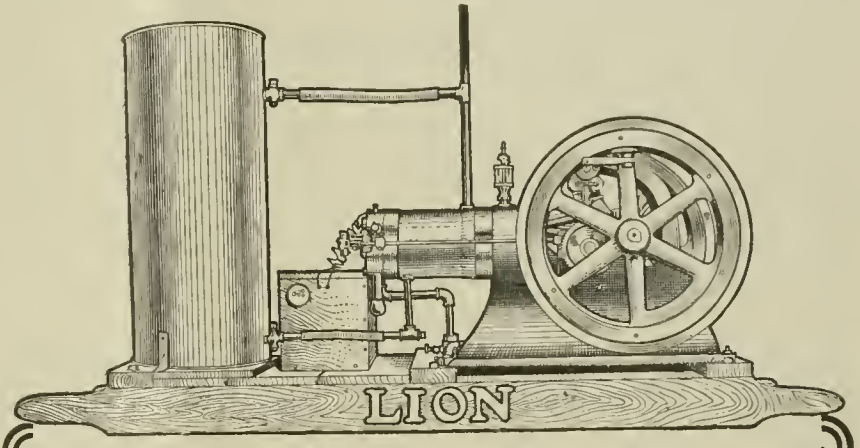
"Before taking my seat I want to say that my interest in strawberry culture dates back to 1880 when I first came to this country. I read and studied a good deal on the subject, but it ended just where it began. In the meantime I have paid out several hundred dollars for fruit, a large percentage of which, by the time it reached here, was hardly fit for use, when at the same time with a very little trouble I could have been raising the most delicious fruit and plenty of it in my own garden. I believe there is scarcely a section of land in the Red River valley but in some parts of which good crops of strawberries could be raised. The land from which I harvested my crop has no natural advantages over the ordinary prairie land in regard to natural drainage, the fertility of the soil, or protection, and any man that can raise good corn or good potatoes can with a little variation raise good strawberries. And to those who intend to start a bed let me say, select a clean piece of ground, having fairly good drainage. Put on a liberal coat of manure, plow and work down fine, get good, healthy plants, and if throughout the season you will do your part I venture to prophecy that very soon you will raise the most delicious fruit and prove to the doubting Thomases who have said that we can't raise fruit in North Dakota that in making that statement they have been committing a gross libel against the country and didn't know the possibilities of North Dakota as a fruit-growing state."

We have heard what the governor of North Carolina said to the governor of South Carolina. We suggest that the governor of North Dakota might say to the governor of North Carolina a much more important and beneficial word. He might say, for instance, in the days of June and July, when the South no longer enjoys the cooling and health-giving strawberry: "Let's take a strawberry, grown on the broad and fertile prairies of North Dakota, so close to the north pole that Aurora Borealis paints the sky at night with its effulgent glories—a strawberry so solid that we can ship it under refrigeration to the Florida Keys under the hottest July sun, and sweet and rich of flavor beyond compare."

And we make no doubt that the governor of South Carolina and all his people would be glad if the enterprising folk of the North state should set up commerce of this sort with them.

FIGURE up what poor quality and slim quantity strawberries cost you last year and, our word for it, you will be disgusted with yourself for going so long without your own patch, with its ample supply of cool, fresh, high-flavored berries ready on demand to give yourself and friends such a treat as nothing else in the world may supply. Better consider this now before it is too late to remedy.

UNITED we win, divided we fail, is a good pharaphrase of that old-time and true aphorism, which our forefathers so aptly employed to bring about a union of the states. Our strawberry friends ought to recognize in the thought a great source of power, and apply it immediately to the cure of untoward conditions. A few days ago our strawberry friends on the Kansas City Southern railway rose up in protest against the rates charged for service. Instead of rushing about as individuals, raining execrations upon the heads of the railway management, these wise growers got together, formulated their reasons for complain' and their demands for reform, and went unitedly to the railroad company. They were met in the spirit in which they



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** bnt has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

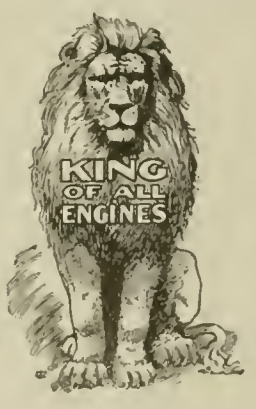
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

LYONS ENGINE COMPANY, Lyons, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for _____ purposes and wish you to send me full particulars about your approval offer as advertised in The Strawberry.
Yours very truly,
Name _____
Town _____
State _____
Street No. or P. O. Box _____
R. F. D. _____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

LYONS ENGINE COMPANY, Lyons, Michigan.

came; their grievances were considered, their requests were, in the main, granted. After all, railroad men are human, and like the rest of us, amenable to plain talk and the spirit of fair play. Another thing, the power of a united movement, when it is just, is altogether out of proportion to the number of individuals interested; by that we mean to say, for instance, that one hundred men, acting for a certain purpose as individuals will accomplish nothing in comparison to the same men acting unitedly for that cause. That is one reason for the existence of society itself. We should use this power of union to its full. When we do there will be little left of which to complain.

DON'T forget that good resolution you made last June that, come what would, you should set out a nice lot of strawberry plants in the spring of 1906. The time is here when you should be putting that resolution into practical effect if ever you are to do it. First thing to do now is to order your plants, or run the risk of getting varieties that are not your first choice if you postpone this simple action. Then see to it that the plot you are to use is liberally covered with stable manure, well-rotted if it be possible to secure it so. And as soon as the soil is in condition get to work fining it with hoe and rake into an ideal state for the plants. These things done, you have started out on a successful career as a strawberry culturist. Follow it up with good cultural methods and that success will be assured.

WHILE there is no doubt that the leguminous crops, with the aid of bacteria, will supply all the nitrogen required for extensive agriculture, there always will be a large demand for nitrates for use by fruitmen and trucksters. This lends large interest to a piece of news that comes from Norway. Near Christiania in that country, we are informed, the enormous water power is made use of for the manufacture of nitric acid from the nitrogen of the air. It is a long-known fact that an electric spark will cause the combination of nitrogen and oxygen. It is said that in the experimental trials a yield of 205 tons of nitric acid was obtained with 500 horse-power, and the factory is now proceeding with 5,000 horse-power to multiply the production ten-fold, and the utilization of 500,000 horse-power is regarded as possible. A production of 250,000 tons of nitric acid would form strong competition for nitrate of soda. Nitrate of lime is to be prepared, the effect of which, for manurial purposes is supposed to be equal to that of sodium nitrate, and, according to latest investigations, is supposed even to excel it. Nature isn't likely to "run out."

Strawberries

IF YOU believe the plants you plant cut any figure in the results; if you think think the best is none too good for you, and cheapest in the end, and if you want to be sure of getting the variety you buy, in a condition to make the most for you, I ask you to investigate

THE PLANTS I GROW

I don't claim to sell you plants cheaper than anybody else. I am not competing with the man whose stock has nothing but cheapness to recommend it, and it is not to your interest to buy that kind. My claim is that I am producing the best, strongest, most vigorous and most prolific plants that can be grown in a favored strawberry climate and that I am selling them at a reasonable price.

ONE HUNDRED VARIETIES

About every kind that has ever proved its right to be grown in any locality. Of course I especially recommend the well known varieties that are standard everywhere, among them being **Virginia, Chesapeake, Cardinal, Commonwealth, North Shore, Oaks Early, New York, Glen Mary, Stephen's Champion, etc.** But select your own varieties and I will send plants to please you.

MY 60-PAGE CATALOGUE

Is free and gives all particulars. Also lists leading varieties in **Cabbage, Cantaloupe, Tomatoes, Field Corn, etc.** Tested novelties and Standard Garden, Field and Agricultural Implements. Don't fail to write for a copy.

W. F. ALLEN, Dept. 58 SALISBURY, Md.

All stock guaranteed disease free and true to name.
Hart Pioneer Stock is pure bred and produces heavy crops.
Value received for every dollar sent us. No Agent's Commission.
WRITE FOR COMPLETE PRICE LIST. WE WILL SAVE YOU MONEY.

HART PIONEER NURSERIES, Established 1865. Fort Scott, Kan.

TWELVE EVERGREENS FREE

We grow our HARDY "BLIZZARD BELT" EVERGREENS by the million. They are healthy, well rooted, vigorous. To prove it, we offer 12 choice spruces and pines 2 years old, entirely free to property owners reading this advertisement. Mailing expense 5c, which send or not as you please. A postal will bring them. Our CATALOGUE, containing 42 colored plates of our HARDY "BLIZZARD BELT" Fruits, Evergreens, Ornamentals, etc., with a mine of valuable information for fruit growers, free for the asking. Write to-day. This offer may be withdrawn later on.

THE GARDNER NURSERY COMPANY, BOX 802, OSAGE, IOWA

Breeding New Varieties of Strawberries

By S. H. Warren

MARSHALL P. WILDER once said that "He who produces a new fruit or flower is a public benefactor," but I shall have to make some exceptions to this saying of our noted friend and horticulturist. When I think of some of the new strawberries that have been disseminated during the last fifty years, I doubt if all of them have been a benefit to anyone; although, perhaps where they originated they may have been a success. I am well aware that some of the varieties which have done poorly with me may have done well with others.

Most new varieties are started from the seed. A single berry with two hundred seeds will produce, if all live, two hundred new varieties. Most of these may be multiplied by runner production, others by crown separation, as the latter do not make runners, but grow in stools.

The artist, in preparing his paint for a certain color, puts together a little of one shade and a little of some other, then mixes them; each addition changes the color. So, in like manner, the Great Artist employs the insects to mix together the pollen from the blossoms of the various qualities of the strawberry and to deposit it in the receptacles or seed tubes of other blossoms. The mixing of each addition changes the quality of the product from the seed.

Watch the busy bee as he flies from blossom to blossom, till he has visited hundreds of flowers. Some of these plants produce fruit that is very acid, other that is very sweet, still other of a medium quality, and so on through all the various flavors. From all of these he has made a collection and a deposit of this mixture. The deposit may not have been intentional on the part of the bee, but it has been done. The next bee or butterfly may visit other varieties and some of the same, each adding to the variety already collected; so it is not strange that each seed should produce a product peculiar to itself. This is the result of promiscuous fertilization. But to procure the best results a plant of your ideal pistillate, also one of your ideal staminate, varieties should be separated from all other varieties, so that when in bloom there shall be no other variety to cross-fertilize but the one you desire. If these two plants set near each other they will fertilize themselves, but if not, the pollen should be applied with a camel's hair brush.

When the berries are perfectly ripe they may be picked and the seed washed out of the pulp in water. By rubbing the berries between your hands the seed will settle to the bottom.

Drain off the water and pulp and dry the seed, then bottle and cork it so no insect can get at the seed to destroy it, or plant at once. We plant the seed in February so as to get stronger plants before being allowed to fruit. If planted in July it will bear fruit the following June, but the plants will not be as strong as if planted in February.

In preparing the soil for the seed use good, rich soil from the garden and mix one-third sand with it. I use a box three and one-half inches deep; put in three inches of the prepared earth; press it with a board so as to leave a smooth surface, then sow the seed evenly over the surface, press with the board, cover with earth one-sixteenth of an inch and press again, then water and cover with a wet cotton cloth.

The seed germinates in about three weeks; when the young plants show the fourth leaf they should be transplanted into other boxes or open ground. All runners should be cut off as fast as they appear to get the best results. If you have done your part well, you may hope to get some good seedlings, but often we are disappointed. You may be sure of getting *new* varieties, but *better* varieties are not so certain.

The Entire Editions of Both the

January and February Numbers of

The Strawberry

ARE EXHAUSTED

This annnouncement is made because of the flood of requests that is pouring in upon this office for copies of the issues named.

For the last several years I have been growing new varieties from seed. Some of the first seedlings I grew were grown from Jewells crossed with Belmonts, or as Belmonts stood next to Jewells, I called them a Jewell and Belmont cross. I had a nice bed of Jewells, but the fruit stood one day too long on the vines and, it being a wet time, many of the berries began to decay. These berries were put into separate baskets as we picked them, and dumped near the packing shed. Most of them were very large. Later in the season I gathered a lot of the seed out of the pile, for there were forty quarts emptied there, sowed it in boxes and transplanted it to the open field. The result was that out of two hundred and fifty plants that lived I selected thirty that were better than many others I had paid high prices for. Yes, I will say better than the average of the standard varieties that are grown in Massachusetts.

I have taken great pleasure in growing these seedlings, watching them from the time the seed first breaks ground till it gives us its first fruit. To get the best results we must have strong, healthy plants to start with. Be careful to save the seed from strong, healthy stock, for the same rule holds as good in plant life as in animal life.

Formerly I have said that all new varieties were produced from seed; but since the introduction of the Pan-American I no longer make that assertion, for that originated from a sport from the Bismarck by bud variation. The Pan-American was first discovered six or seven years ago last September. The originator was walking over his Bismarck bed in New York state and found the parent plant with sixteen young runner plants all producing either green or ripe fruit and blossoms. From these seventeen plants this new variety has been propagated so that nearly every plant produces fruit out of the regular season of the common varieties. I have grown them three years and they are a wonder to all who see them in the fall.

Most people who have tried them complain they do not make enough new plants; but if grown on black, moist soil, they will produce plants enough. Where mine do the best is on a reclaimed swamp (black muck land). If you have any variety which is a poor plant maker use this kind of land to propagate the plants, and there will be no trouble in getting all the plants needed. Many of the older strawberry growers remember the Jewell strawberry introduced by P. M. Auger of Connecticut. They were a poor plant maker on dry soil. The first hundred plants I bought (for which I paid ten dollars) of the Jewell were the largest, best-looking plants I ever saw. These I set in rows next to Belmonts which covered the ground too thick, although they were set four feet apart; but the Jewells didn't average three new plants to the parent plant. Late in the fall I took up some of the very small plants (tip-enders) that I feared would not live over winter, and set them in a cold frame under glass and wintered them there. The following spring I set these tip-enders on my reclaimed swamp, and the plants covered the ground as thick as a mat. Since then I am not afraid to set small plants (particularly of those varieties that are poor plant makers), for the tip-enders of these varieties will produce more runner plants than the large overgrown plants of that same variety.

What is there about a small-end plant that is so objectionable with most people? You say, "it is too small." But so

The Old Reliable New American Cultivator Sold on an Entirely New Plan. We Let You Test it on Your Own Farm a Full Month—FREE

PROBABLY no Riding Cultivator is so well and favorably known to the farmers of this country, from East to West and from North to South, as the New American. We have sold them for many years and they have always given and are now giving splendid satisfaction. Now we are offering this Old Reliable New American Cultivator on an entirely new plan.

We have been selling to the dealers, but, realizing that we could serve our real customers, the farmers, to better advantage if we were doing business with them direct, we recently changed our Entire Sales Organization, and are now selling all the product of our Factory direct to the farmers who use the machines.

The New American Spring Tooth Cultivator is a success because the Lock Levers positively control the Teeth. Spring Teeth are ideal for all kinds of cultivation—they vibrate in the soil, they break up the lumps and scatter the fine soil loosely over the surface, they do not pack the soil but pick it up and let light and air, life and vigor into it. They do not merely plow through the land leaving it in ridges, but *cultivate all the surface*, leaving it fine and level.

But, to do good work, they must be controlled by machinery. The vibration which makes them so valuable to the soil, makes it impossible to hold them securely by hand or foot. That is where the New American Cultivator does its part. Notice the little wheels from which the sections hang. See the bars on which they roll. These bars are *Locked securely* in any position in which they are placed, by the **LOCK LEVERS** which are within easy reach from the seat.

The sections roll from side to side with entire freedom; a boy can guide them easily, and they do not swing up out of the ground, but are always doing the same *level cultivating*.

We furnish a Center Section with 5 teeth with each Spring Tooth Cultivator. This makes a splendid Harrow for fitting your ground. We can also supply Broadcast Seeder Attachment, or Bean Harvester Attachment, or both.

Now we have only just touched upon one good point of the New American Cultivator. There are many more, and they are all explained in our Cultivator Book, which we want to send you.

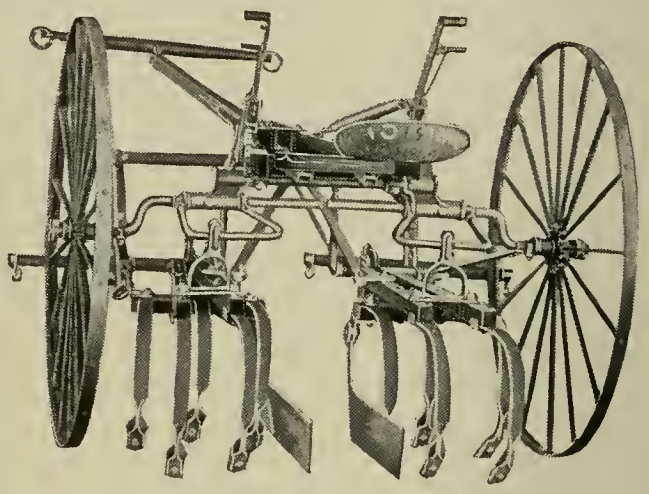
Our Liberal Proposition

And we want, not only to send you the Book which tells about the good points on our Cultivator, but we want to send you the machine itself, so that you can find out for yourself about its merits.

We will send you a New American Cultivator on trial at our own expense. You needn't even stand the freight. Simply send us a trial order for the New American Cultivator, and we will ship one to your railroad station, *freight prepaid*. You don't pay us anything. We don't ask you to make any deposit. You just take the Cultivator home and use it a month **FREE** on your own farm. Give it a good stiff test. Cultivate with it just as if it was your own.

If you don't find it exactly as represented—if it don't show up to be all we claim, take it to the railroad station and tell the agent to ship it back to us at our expense. The use you have had of it won't cost you a penny.

If the Cultivator *is* as represented you can pay as suits your convenience. We will allow you any reasonable time. How's that for a fair proposition?



You see we are not new in the agricultural implement business. We have been making Cultivators about as long as any house in existence.

Our capital is large enough to enable us to buy materials in quantity. We don't buy anything but the best. The machinery in our factory is all high-grade. We have all the latest labor-saving devices. Our men have been with us for years. They know Cultivators from the ground up, and can make them just right every time. This means the finest Cultivators that can be turned out. And at lowest cost consistent with the high standard of quality we maintain. It means that when you buy a New American you get *a hundred cents worth of Cultivator for every dollar you invest.*

You Buy from the Makers

We sell our entire output *direct* to the farmers. Doing business this way keeps us in close touch with the users of our cultivators.

If you need new parts at any time, or there is anything you want to know, all you have to do is to write to us *direct*. You know where to find us. We know who you are. You get quick attention, and all your dealings are direct with the Maker who knows all about your machine.

If you want to try a New American on this offer of ours you ought to write to us at once. The **direct to you, 30 days' FREE test, and long-time terms plan** is bringing us hosts of orders, and we are already working overtime to supply the demand. Our New American Cultivator Book tells the rest of the story about the New American Cultivator and it tells all about the New Plan on which we are selling it. Just say in a letter or on a postal card, "Send me your New Cultivator Book", and you will receive it by return mail, with full particulars about our Liberal Free Test and On Time propositions. Address—

American Harrow Co.,

4536 Hastings Street,

DETROIT, - - - - MICHIGAN

were the largest ones small at first. I am not now referring to those small plants which grew in the bed as thick as the hairs on a dog's back, but the small plants that grow at the end of the runners. The large stocky plants have their fruit in an embryo form started in them and this fruit prevents them from making the most plants. But the smaller ones are the plant-makers. Please keep in mind that we are speaking particularly about those varieties that are notably poor plant makers, and I now repeat that the small plants of these varieties will produce more runner plants than the large, stocky plants of the same variety. Plenty of water and stable manure will grow plants on most any soil.

Weston, Mass.

FREE strawberries for Canada are asked for in a bill introduced into Congress by Representative Thomas, of North Carolina. There is now a duty of two cents a pound on strawberries and other berries imported into Canada from the United States. This doesn't do the Canadians any particular good, and it hurts the market for the American fruit. Mr. Thomas wants the president authorized to make a treaty with King Edward by which this duty would be removed.

Reports From the Field

THE situation as regards strawberry production is quite as cheerful as could be desired. Away down South "in the land of cotton" a recent cold wave did considerable damage to the crop, and reports from Louisiana and North Carolina estimate the damage in some sections to represent about 30 per cent of the crop. Florida has been eating and shipping the fruit since early February, and all along the gulf and away over in Texas the same pleasant experience has been had for weeks. In the neighborhood of Wilmington, N. C., the world's most wonderful strawberry center, they are counting upon shipping 2,250 carloads, or 18,000,000 quarts, during the season, estimated to be worth to the producers about $3,000,000. The berries are reported as giving especially fine promise this season. The Atlantic Coast Line railway is to put on a night strawberry express to the North and the car lines promise first-class service.

Some extraordinary figures come to us from the South. For instance, one grower at Plant City, (Fla.) is said to have shipped $2,300 worth of strawberries from two and a half acres. It suggests how large are the possibilities in strawberry culture.

Secretary E. A. Pugh of the Hoffman Fruit Growers' Association of Durant, Miss., writes The Strawberry that the plants bloomed two weeks earlier than usual this season and suffered somewhat from frost, but that from 150 to 200 carloads will be shipped from there this season, a substantial increase over 1905. There are 1,000 acres in strawberries in Holmes county in which Durant is located. Reports from other Mississippi points are equally encouraging.

B. A. Hastings, secretary of the Sumner County Association at Gallatin, Tenn., writes us: "The outlook for strawberries

LITTLE ADS. FOR OUR FOLKS

AN ADVERTISING EXCHANGE FOR ALL Strawberry Growers in which they may make known their wants. If you have anything to buy, sell or exchange, need a job or are looking for help in your strawberry work, here is the place to make it known. Count name, post office, initials, words or numbers each as one word, and remit a sum equal to 2 cents for each word for each insertion. No order will be accepted for less than 25 cents and cash must accompany each order. Advertisements must contain address, otherwise we cannot forward replies from this office. Remit by post office or express money orders.

PRINTING FOR STRAWBERRY GROWERS—Letter heads, envelopes, cards, labels. First-class work at low prices. The Kellogg Publishing Co., Three Rivers, Michigan.

TRY the Kellogg malleable-iron, one-piece Dibble, if you would turn plant-setting into a delight. Pays for itself in one half-day's work. Write the Kellogg Co. for their little folder on "How We Keep Down the Weeds." 'Twill help you in your work. R. M. Kellogg Co., Box 775, Three Rivers, Michigan.

25 VARIETIES of Poultry, Eggs and Fowls for sale on short notice. Send 4 cents for catalogue which will give you prices and descriptions of best fowls and eggs. W. SEIDEL, Box S, Eleroy, Ill. (46)

WANTED—Young and energetic man to help me in my work as a strawberry grower. Will furnish house and stable, rent him land in town; buy Kellogg plants for him, and furnish complete layout. Greatest opportunity for good man to be found anywhere in the world. J. S. Bonham, Rigby, Idaho.

RHODE ISLAND REDS—A superior strain of heavy layers; vigorous, farm-raised stock. Eggs $1 per sitting. J. McPartland, Williams st., New London, Conn.

BARRED PLYMOUTH ROCKS, White Plymouth Rocks, Rose-Comb Brown Legborns. Farm range for stock. Choice of varieties. $1.25 per 13. Two or more sittings, $1.00 each. Z. Turner, Eleroy, Ill.

WHITE-CRESTED BLACK POLISH and imported English Redcaps. Two handsomest breeds. Eggs, $3 per sitting; two sittings for $5. Stanley Turner, Eleroy, Illinois.

FERNWOOD POULTRY FARM, breeders of large, vigorous, heavy-laying Barred Plymouth Rocks; also Mammoth Pekin Ducks that won all firsts, Toledo, 1906. Eggs, $1.25 sitting. Route 2, West Toledo, Ohio. (45)

WHITE WYANDOTTES EXCLUSIVELY—Pedigreed Plants and Pedigreed Fowls should go together. We have the fowls, and will be pleased to express the eggs at $1.50 to $3.00 per 15. Davis Poultry Co. Audubon, Iowa. (45)

MICHIGAN FARMS Good improved farms, splendid soil, fine climate, selling cheap. Write for "list F". BENHAM & WILCOX, Hastings, Michigan.

We Want An Agent

In every Town in every State of the Union and the Dominion of Canada to take subscriptions for

THE STRAWBERRY

A generous commission will be allowed on each subscription taken, and to the man or woman, boy or girl who will send us the largest number of subscribers in excess of 100 between this time and the 15th of December, 1906, we offer any one of the following list of tours as a prize:

¶ Round Trip to Washington, D. C., and $15 in cash to pay expenses while there.

Round Trip to Niagara Falls and same amount in cash.

Round Trip to Jacksonville, Fla., and same amount in cash.

Round Trip to the Farm Home of The Strawberry and a full week's entertainment.

The winner may choose which of these tours will be taken and when, and The Strawberry will publish a full account of the trip, illustrated with the winner's photograph, and a story of the way in which the prize was won.

Write us for sample copies and get to work.

DO IT NOW

THE STRAWBERRY

118 Portage Ave. THREE RIVERS, MICH.

in this section is very favorable. Shipments will begin about May 1. The association is doing good work in securing better markets, better prices and better feeling among the growers." Mr. Hastings reports a steady increase in acreage. Secretary J. C. McKelvy of the Humboldt (Tenn.) association writes that 250 carloads will be shipped from that point, a decrease from last year, owing to a lessened acreage.

The Ozark region of Arkansas is developing a very large interest in strawberry production, and thirty local associations in that section ship through a general organization known as the Ozark Fruit Growers' Association. The reports of these organizations in the main are encouraging. However, a complaint comes from T. A. Sharp, secretary of the Mammoth Spring (Ark.) Association that "Tranportation and private-car-line companies have been getting about all of our profits so far. Of the thirteen cars shipped one season the freight and icing charges were from $160 to $268 per car, and this is more than we can stand and remain in the strawberry business."

Secretary W. E. Roark of the Anderson (Mo.) Association writes The Strawberry of a 40-per-cent increase in shipments for 1906 over the preceding year. Fifteen carloads were shipped last season and twenty-five will be shipped in 1906. Net returns last year were $1.20 per crate.

FROM the Whiteville, (N. C.) Courier we learn that Herbert Crowell, an old colored man of that section, has brought out an invention that he calls a strawberry mulcher, consisting of a hood

'ake Your Own Time. **Old Trusty Incubator**

40, 60 or 90 Days Trial.

We want to send you the "Old Trusty" Book. You ought to read it before buying an incubator, because it has more every-day "chicken sense" in it than any catalog you have ever seen. 300 good pictures. It tells **why** "Old Trusty" does such good work—**why** it hatches so many and so good chicks—**why** it is so easy to operate—**why** it is so economical. It's sold on 40, 60 or 90 days trial, freight prepaid. Write to us.

M. M. Johnson Co., Clay Center, Neb.

We Pay the Freight.

Let Me Tell You The Special Price On this Genuine 1906 Chatham Incubator.

If you say so we send it to you at our expense to try 84 days. You see it—you see it work. If not entirely satisfied, return it at our expense. We return your money and ask no questions. Anyway send for free catalogue. Find out about it, then try it. Write today

84 Days Free Trial

The Maosoo Campbell Co. Ltd. 282 Wessoo Ave. Detroit, Mich.

BUY YOUR STOCK AND EGGS OF A SPECIALIST

MY WYANDOTTES

ARE WHITE AND STAY WHITE

And are unsurpassed as egg machines or table poultry. I have bred them exclusively for nine years, and spared neither time or expense in perfecting my strain. Eggs

$2 per 15; $5 per 45; $10 per 100.

Correspondence invited.

A. M. GRECIAN, FLAT ROCK, INDIANA.

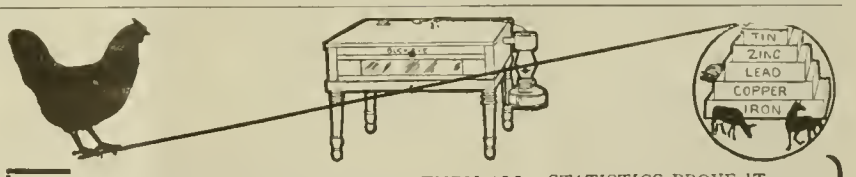
$10.00 FOR THIS 200 EGG PERFECT HATCHER & BROODER COMBINED

100 Egg Size $6 Brooders $5

B. P. Rocks-Eggs $1 per 15. $5 per 100.

TESTIMONIALS & ILLUSTRATED CIRCULARS 2¢

J. A. CHELTON FAIRMOUNT MD.



THE AMERICAN HEN OUTWEIGHS THEM ALL. STATISTICS PROVE IT.

Get a Buckeye on **FORTY DAYS TRIAL.** As low as **$5,** or 200 egg size, **$12.75,** or RENT one at **$1** per month. Let rent pay for it, *we paying freight,* or buy *parts* and *plans* and *build one.* They are self regulating. Guaranteed best work and material, and to hatch every hatchable egg. A town lot is large enough for the business, but a farm is better. Everything the poultryman needs of Best Quality and at Lowest Prices.

A 6 ft. by 3 ft. Iron Roof Colony House, complete, for $5.75. Foods with no Grit in them. A 25c package Buckeye Chick Starter will save you dollars.

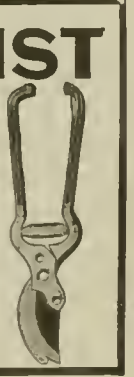
Catalogue Free. BUCKEYE INCUBATOR CO., Box 49. SPRINGFIELD, OHIO.

The **APPLE SPECIALIST**

PUBLISHED MONTHLY

"The Fruit-Growers Friend"

It treats of how to SELECT, PLANT, PRUNE, SPRAY and FERTILIZE TREES; extinguish all kinds of ORCHARD PESTS; pick, pack, and market apples; how to make cider, vinegar, etc. 50 cents per year. SEND ONE DOLLAR for three years and receive a pair of 60c PRUNING SHEARS, prepaid, as a premium. Address,



The Apple Specialist, Dept. A68 Quincy, Ill.

with which to lift the runners of the plant and a rake with which to place the straw. It is claimed that with this simple device one man can do the work of two or three men in the old way of mulching by hand. Uncle Herbert, who has invented this simple little device is about eighty years old. A patent has been applied for and is now pending.

An Oklahoma Poet's Greeting

By J. T. Taylor

I AM a warm friend of this little child, The Strawberry. A subscriber before its advent, now since mine eyes have seen the way in which you clothe this little one (destined to be great) I, with good old Isaiah, that eloquent poet and prophet, cry out in behalf of strawberry growers everywhere: "Unto us a child is born; its name shall be called Wonderful, Counsellor!"

My experience in the strawberry business is of eight years' standing. I am situated in the beautiful valley of the Cimarron. I market my berries in the town of Lawson, the place where the notorious outlaw, Bill Dalton, met his death at the hands of United States marshals.

I am a subscriber to that splendid horticultural journal the ———— ————, and many times have I thirsted for strawberry lore only to look for it in vain in the pages of that paper—it was absolutely devoid of anything bearing on the subject. But the two issues we have had of The Strawberry surely meet our highest expectations and henceforth we may know on what to depend.

We should like to have you come down and see us, and the thought appears to have awakened the muse, so I take the liberty of inviting you in rhyme:

Come to the Square Four-acre farm of South-
east Thirty-three
And to the west then turn thine eyes and tell us
what ye see.
Look out and o'er the grandeur of this
scene—
The boundless prairie with its wealth of
living green;
The multi-colored flowers that robe the land,—
The rich and ample bounty come from God's
own generous hand;
The homes where love and labor meet
To make this good old world more sweet.
And here's my patch of berries, too,
And some of them are just for you.
Come, then, though long the way,
Come in the balmy month of May.

Yale, Okla.

REPORTS received from Indiana and Iowa indicate that the strawberry outlook is excellent and favors an early and unusually large crop.

Do Your Doors Rattle?

Of course they do. 99 out of every 100 rattle and slam with noise enough to drive anyone crazy

Stop It!

with one of our *Anti-Door-Rattle* Attachments. Anyone can attach them to the door casing. They last forever. Self-adjusting. The best thing you ever saw. They all say so

Agents Wanted; No Has Beens

Price: 10 Cents Each, or 75 Cents per Dozen
State whether light or heavy door

The American Anti-Door-Rattle Co.
415 Perrin St. YPSILANTI, MICH.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

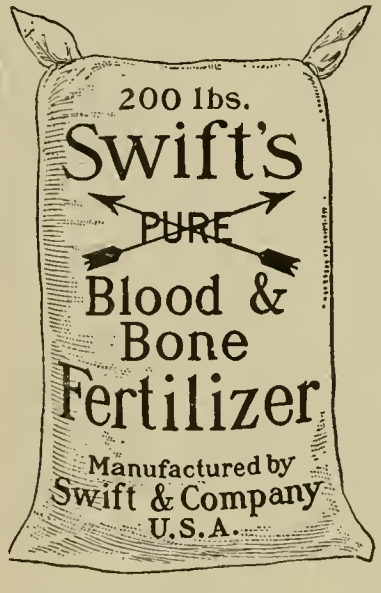
The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.
Send stamp for booklet.

To Strawberry Growers

We are offering a high grade concentrated fertilizer, utilizing Pure Animal matter as a base. Dried Blood, Bone and Meat Tankage have fully demonstrated in the soil that they are the best plant foods known. The guaranteed analysis of

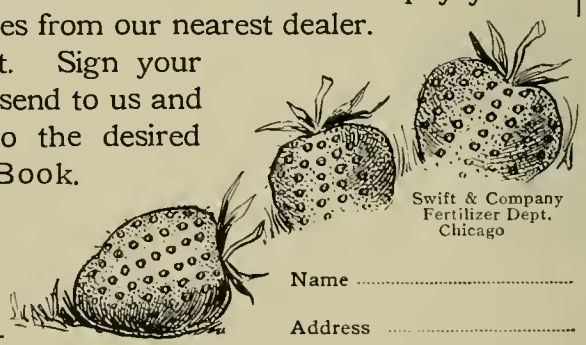


Swift's Strawberry Special

Ammonia, Available	4 Per cent
Phosphoric Acid, Available	9 Per cent.
Potash, Actual K_2O	10 Per cent.
Equal to Sulphate of Potash	18.50 Per cent.

produces early and strong growth of plant, better setting of fruit and a full development of crop. Makes top market prices. In considering your soil management for this season it will pay you to get full information and prices from our nearest dealer. Better still — address us direct. Sign your name to coupon, cut out and send to us and we will send in addition to the desired information, a copy of our new 1906 Fertilizer Book.

Swift & Company, U. S. A.



Swift & Company
Fertilizer Dept.
Chicago

Name .....

Address .....

A Honey-moon Strawberry Enterprise

By Cora June Sheppard

With Illustrations From Photographs by the Author

A SHILOH, NEW JERSEY, STRAWBERRY BED

THE first money I ever earned was by picking strawberries at two cents a quart. That was when I was a very little girl. Father had a patch and hired pickers. My two older brothers picked for pay and I wanted to do the same.

It was a cross to me in those days not to be allowed to just pull the berries off, instead of cutting the stems with the finger nails. I thought the pulling process was the fastest and I wanted to make all the money I could—a habit that has stuck to me. Wasn't I happy when there were several boxes full to carry up! The record was kept on a shingle. Oftimes my mother took the berries to market The crates were loaded in the covered market wagon and a gentle horse put in the shafts—she drove to the nearest town, and from there they were sent to the city by boat.

Now that the dear mother has passed away and I find myself in a home of my own with all its problems to face, I sometimes wish I could go back to those happy, care-free days.

At the old home on the farm we did not tire of strawberries if we had them three times a day, and mother would can sixty or seventy quart-cans each season. How eagerly we watched for the first berries each spring! My eagerness would hardly allow me to wait until the berry was red all over.

I was married in June 1904, and one of the first things thought of for future pleasure and profit was a little strawberry patch. So in a small space between our barn and the neighbor's 135 plants were set out. While the work was being done by the husband after his regular occupation was finished, I sat in a lawn swing nearby and we laughed and talked. This patch we call our honey-moon patch. The next season it repaid many fold the time and trouble of putting it out. Our table was supplied all the season and there were berries to spare. We did not let them waste, however, but gave them away. A number of quarts were canned.

Before we realized how nicely the honey-moon patch was going to yield a second patch of four rows was put out. All our gardening is done after the regular work hours. Getting one's hands and feet in close contact with mother earth is the best society we need; the contact is healthful and life-giving.

When Patch No. 2 was made I dropped the plants—but not as a barefoot girl, as was my first experience on the farm of my childhood. The dark caught us and the last row was completed entirely by feeling and not seeing. Not a plant died. All grew and grew and the people, as they passed, marveled at their beauty.

After the ground was frozen a covering of manure was placed on them. They are not now a thing of beauty, but we are enjoying in anticipation the delicious berries that will come forth with the advent of the warm May sunshine.

To the Jersey man a strawberry patch is like a good gold mine—it is very profitable. Why there are so many poor people I cannot understand, when there is so much land and money to be made therefrom, if one will give a little time and labor to the cultivation of the strawberry.

Shiloh, N. J.

THE vast possibilities of plant breeding can hardly be estimated, says Luther Burbank. It would not be difficult for one man to breed a new rye,

PICKERS AND PACKERS IN THE FIELDS OF WALTER L. MINCH, SHILOH, NEW JERSEY

wheat, barley, oats or rice which would produce one grain more to each head, or a corn which would produce an extra kernel to each ear, a potato that will add another potato to each plant, or an apple, plum, orange or nut to each tree. What would be the result? In five staples only in the United States alone, the inexhaustible forces of nature would produce annually without effort and without cost 5,200,000 extra bushels of corn, 15,000,000 of wheat, 20,000,000 of oats, 1,500,000 of barley, 21,000,000 of potatoes. But these vast possibilities are not alone for one year, or for our own time or race, but are beneficent legacies for every man, woman and child who shall ever inhabit the earth.

⚜ ⚜

Another Amateur's Experience

By Ada B. F. Parsons

I HAVE advocated patronizing home industries with much enthusiasm all my life, but some recent annoying experiences have led me to undergo a change of feeling and a few more similar ones will effect a thorough conversion. A catalogue from a well-known strawberry farm found its way to my reading table and it found me in a receptive mood. The attractive pages, so full of instruction, convinced me that I wanted to experiment with some of the varieties described therein.

Two years before I had ventured with fear and trembling into strawberry culture. Two hundred plants from our home nursery were transplanted and tended with all possible care. They grew and promised everything one could wish. The bed was a perfect beauty and we counted the days until we should reap a harvest. The "gude mon" even bought an extra Jersey cow on the strength of his belief in these promises. The children were promised strawberry shortcake and Jersey cream to their heart's content.

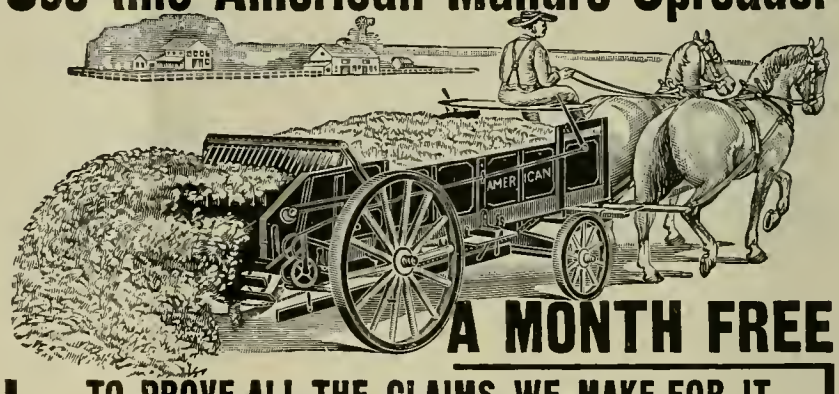
Well, it would not be fair to say we were disappointed; far from it, we picked altogether two hundred quarts and were it not characteristic of human nature to always be wanting more in this world we might have been content. "Aye there's the rub." In this patch there were three little spots, of perhaps a half-dozen vines each, which grew berries equal to the pictures in the catalogue afore mentioned. We always carried a dish to the patch in which to pick these separately to show to the neighbors, and while our backs were almost breaking in picking the small berries that resembled in size the wild berries, we couldn't help being provoked at ourselves, our nurseryman and everyone in general because we hadn't known enough to buy all big varieties. The possibilities of a patch such as ours, of the fancy varieties could hardly be comprehended, and our work would have been identically the same.

The fact that we had the only strawberries in the neighborhood and that all who came and shared them with us resolved henceforth to grow their own hardly compensated us for not knowing how to have had better ones. But experience, coupled with the information found in the catalogue, made the way clear, and I called up our nurseryman over the 'phone. I was "chock full" of queries as to varieties and his ability to furnish me just so many of each and I would know this time exactly what I was doing. But like a dash of cold water was his courteous reply that he could furnish and guarantee no separate varieties; that he had not found it practicable in the past to keep them separate since so many people didn't understand the principle of mating, etc.!

Such theories to come from a nurseryman who virtually controls the supply of the entire county is absurd, inconsistent and very discouraging, when you reflect how many people will buy of him, experiment a season or two and eventually give up in despair and declare that they have no luck growing strawberries.

What a boon to the farm world it would be if The Strawberry could be placed in the hands of every farmer who has any aspirations towards living up to his privileges! If he would allow himself to become convinced that no more effort is re-

Use this American Manure Spreader



A MONTH FREE

TO PROVE ALL THE CLAIMS WE MAKE FOR IT

WE sell *direct to you.*

We sell direct to you *because* we are able to give you much better value for your money than we otherwise could, and a better understanding of your machine than any one else could. We always keep in close touch with our customers. They tell us what our Spreaders are doing. Sometimes they surprise even us.

We find out just what it means to countless farmers to own a Manure Spreader that will double the value of every bit of manure put on their land.

The American Manure Spreader will do this because it breaks up and pulverizes all the manure so that it mixes readily with the soil. It distributes evenly. Every square foot of land gets its share. This means a good crop all over the field. You don't find any "*skinned*" places in a field manured with the American Spreader.

But we don't ask you to take any hearsay evidence.

We want you to *find out for yourself* what our Manure Spreader will do.

So we make you this remarkable offer. We will send you one of our Spreaders *on trial* and *prepay the freight.*

Use it a month on your own farm.

If you find it exactly as we have represented, after the month's free trial, you can settle for the machine on terms convenient for you.

But, if the American Manure Spreader is not what we claim, send it back *at our expense.* You don't owe us anything. The trial don't cost you a penny. The month's use you have had of the Spreader is **FREE.**

Could we do more to *prove* to you that the American Manure Spreader is what we say? Would we dare to make such an offer if we didn't know what our Spreader will do? Remember—when you deal with us, you are doing business with an independent concern.

We do not belong to any Trust or Combination.

And by our plan of making and selling *direct,* you get a dollars' worth of Manure Spreader for every dollar you pay.

You see we make more Manure Spreaders than any other concern in the world.

We own and operate the largest factory ever built for this purpose.

It is equipped with every modern labor-saving device. All our machinery is up-to-date—the very "latest improved".

This means the best possible machines at the lowest possible cost.

The American Manure Spreader is today an example of the very highest development in modern agricultural implements.

It is absolutely up-to-date.

The principles upon which it is constructed are *sensible and practical.*

There are no complicated parts to get out of order. It is simple, and carefully constructed.

And you take as much time as you require to pay for the Spreader after you have used it **A MONTH FREE.**

The Spreader may earn its own cost, before you send us a shilling.

Will you be as fair with us as we are willing to be with you?

Will you send for information of our generous proposition today?

Even though you do not wish to buy now, send for particulars.

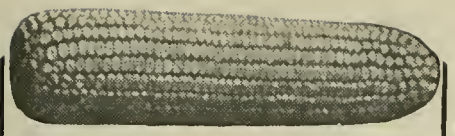
Some day you may wish to buy, and then knowledge of our New Selling Plan will come in handy. You will know *how to save money.*

If you will tell us how much land you own, and how many horses, cattle, sheep and hogs you keep, we will give you the Government statistics as to the value of your manure crop.

Write to us today. Put down this paper and write before the matter has a chance to slip your memory.

Address at once—

AMERICAN HARROW CO., 4533 Hastings St. Detroit, Mich.



WANTED---1000 OF THE STRAWBERRY GROWERS TO TEST

DOERR'S YELLOW DENT CORN

In 1906. Originated by us in 1902. Stands without a successful rival in the corn belt today. We start you with four pounds seed, delivered at your door by U. S. mail for $1.00. **Enough to grow 25 to 40 bushels.** Why not test it? We are in earnest in the matter, and give you the HARVEL BANK as reference as to our reliability.

A. T. DOERR & SON, - - - HARVEL, ILLINOIS

Large circular FREE. Write for it

A Sensational Discovery

Silver King Hardy Celery

3 crops in one season. First crop early in May. Root hardy, everlasting. Multiplies rapidly like asparagus and guaranteed as represented. Agents make $5 to $20 a day. **TREES by the million.** Northern grown, 700 acres. Buy from the Big Nurseries. Agents wanted. Cash paid weekly. Greening Fruit Book, 25c. Write today.

THE GREENING NURSERY COMPANY
28 Maple St., Monroe, Michigan.

DEWBERRIES

After Strawberries, the best paying crop the small fruit grower can raise

Write about Plants and Culture to

T. H. Smallwood, Box 5 R 1. Fort Scott, Kas.

The Best Fruit Paper

is The Fruit-Grower, published monthly at St. Joseph, Mo. The regular subscription price is a dollar a year but if you will write for free sample copy and mention this paper, you will receive a proposition whereby you may secure it one year WITHOUT COST. Every one who has a few fruit trees or a garden, should read

THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

Every issue is handsomely illustrated and from 32 to 64 pages a month are filled with interesting matter pertaining to fruit-growing and gardening. The first four issues of 1906 will be handsome special numbers devoted to the following subjects:—January, The Horticultural Societies; February, Spraying; March, Gardening; April, Small Fruits. Any one of these numbers will be worth a dollar to you. We publish the "Brother Jonathan Series" of fruit books. Send your name and learn how to secure these books free.

TRADE MARK BRO. JONATHAN

Fruit-Grower Co. 167 S. 7th, St. Joseph, Mo.

quired to raise all the strawberries he could possibly consume than the patch of cabbage he always raises, how much better fed would his family be. There is a host of my co-workers who like myself will learn from a careful study of The Strawberry the things that will enable us to become experts in berry culture, and Three Rivers will become a familiar household word in homes whose inmates now could hardly locate it on the map. That it has a big field before it, and a very useful one, is clearly to be seen, and its success already is assured.

Fairfield, Ia.

ANYONE who doubts that there is money in bee-keeping need only to look up statistics on the honey crop of the United States to find out what a great marketable article honey is. In the year 1900 the total amount of capital invested in bees in the United States was $10,196,000. The returns from the National honey crops that same year were $6,665,000—a dividend of 65 per cent on the amount invested. What other crop pays this rate of interest? At a recent convention of the bee-keepers of the state of Massachusetts—the fact was revealed that only forty tons of honey is raised annually in that state, while the amount of honey consumed each twelve months amounts to more than 200 tons. Honey always is a ready seller, and the price per pound averages anywhere from 12 to 20 cents, depending upon the locality and quality. A good hive of bees in the average locality will produce about 75 pounds of honey per year and pay 50 per cent on the investment the first season. Get posted on bee-keeping if you seek a pleasant and profitable occupation, writes T. P. Hallock of Medina Ohio

THAT the people of the South are quite as willing to pay for good strawberries as are Northerners is indicated by the prices paid down there for early berries this season. The first four crates to reach Houston, Texas, for instance, netted the grower $52.05, and thirty-six crates that followed netted $380. We repeat what we said in The Strawberry for February, that the Northern growers of late berries, could, if they

FRUITMEN SHOULD KEEP BEES

There will be a nice income to you from a few hives of bees, and your

Plants will Bear Better

Fruit bearing depends upon the fertilization of the flowers. Why not make fertilization certain and at the same time add to your income by keeping bees?

Bees are not expensive and can be made extremely profitable. Do you want to know how? Our printed matter will start you right. Many interesting booklets free.

"The A B C of Bee Culture"

the best text-book for bee keepers ever written, with over 500 large large pages, beautifully illustrated, for only **$1.00.** Send for free booklet.

The A. I. Root Co.,

MEDINA, - OHIO

HEADQUARTERS FOR

Berry Boxes

PEACH AND GRAPE

BASKETS

ALSO MELON BASKETS

Established in 1869

Experience Counts

To obtain highest prices for your fruits ship in our packages

Illustrated Price List Free

Wells-Higman Co., ST. JOSEPH, MICH.

Let us Act as Your Factory

THAT'S OUR BUSINESS

We make nothing of our own for sale. Manufacture exclusively for others anything in metal. We refer you to the publishers of this magazine.

Kalamazoo Novelty Co., 200-216 Rose St., KALAMAZOO, MICH.

450,000 TREES

200 varieties, Also Grapes, Small Fruits etc. best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. Lewis Roesch, Fredonia, N. Y.

WHAT ONE OF OUR AGENTS DID

IN ONE AFTERNOON

Eleroy, Ill., March 12, 1906.

Kellogg Publishing Co., Three Rivers, Mich.

Gentlemen:—The sample copies of The Strawberry came this noon. This afternoon I got four subscriptions and an ad. of thirty-five words for three insertions. Enclosed find money order for $4.58.

S. S. TURNER.

YOU CAN DO AS WELL

Read our great offer in another place in this issue, and get to work at once. Everybody subscribes if given a chance to learn the merits of The Strawberry

grew them, find a large and generous market for very large quantities of strawberries. However, the Northern states will continue to absorb thousands of carloads of late-grown berries in excess of what now is offered them, and it is likely to be a long time before Northern-grown berries will reach the hungry folk of the South. But what an opportunity for a lot of enterprising folk if they would utilize the cheap but fruitful lands of northern Michigan, Wisconsin and Minnesota, as might easily and inexpensively be done, in the growing of late strawberries!

IF you'd have a garden neat
Do it now;
If you'd have strawberries sweet,
Do it now.
Spring is coming on a pace;
She'll give you a merry race,
If you trespass on her grace—
Do it now!

When Old Age Comes On

I ENCLOSE a dollar, and I want The Strawberry. While I am not in the business as yet of growing anything, I anticipate doing something of the kind in the near future, and your plan strikes me as being the proper thing. I am a railroader, but I have a continual hankering after a more independent life; besides, my age soon will shelve me as an active man; but am still not old enough to kill as some advocate. But I do love soil culture, and had considerable experience in younger days. I hope by spring to be in shape to put out some plants.

Louisiana, Mo. R. M. S.

THERE is something pathetic in that frank letter from a man who has given his life to service as a railway man, and now, with the frosts of winter showing in his hair, turns back to Mother Earth as the source of subsistence and support in his declining years. What this friend writes is but the expression of thousands in like situation and possessed of like feelings and desires, and it gives the publishers of this magazine great satisfaction to know that they may be of help to such as he in getting started on the right road to success and an independent old age.

An independent old age! Who but looks hopefully to that goal as the supreme earthly desire? Just as there is nothing more sad and more wretched than dependent old age, so there is nothing else that brings so great joy to later years as the assurance that in the days when the sun of life is westering there shall be no want, no poverty; but comfort, cheer and plenty.

And where shall he go but to the warm and generous bosom of Mother Earth, from whose abundance all things material come? And to what order of undertaking may he look with greater confidence as the solution of his problem than that of strawberry production? We know of none, and with his youthful experience to start in with—as he doubtless was one of the boys that left the farm at the call of the city—he will find it no difficult task to take up the work and carry it forward to success. That he will, like the prodigal son, enjoy the fat of the land and renew his youth in his return to his first love, we have no doubt.

Haste That Makes Waste

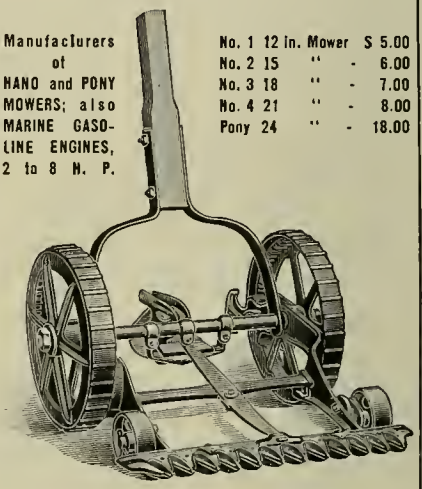
WILL strawberry plants fruit the same spring they are set out? This question is more frequently asked us than any other. Especially from new beginners and those wanting berries for family use; and our answer always is this: Plants that are set out this spring would bear fruit, but to allow them to do so will weaken the plants by pollen-exhaustion and seed-production and perhaps result in killing them; therefore, the loss would be greater than the gain. All newly set strawberry plants should be relieved of their buds and blossoms just as soon as they appear. Simply pinch or cut them off. This is an easy job and it pays big to do it. When this is done, it throws all the strength to the mother plants and gives them a chance to send out vigorous runners and develop up a large crown system.

If a plant is allowed to fruit at once after transplanting the great strain of pollenating and seed production takes place before the plant is established in its new quarters, and all the vitality that has been stored up in the crown and roots is used up in maturing the fruit, making it al-

CLIPPER LAWN MOWER CO.
DIXON, ILLINOIS

Manufacturers of HAND and PONY MOWERS; also MARINE GASOLINE ENGINES, 2 to 8 H. P.

No. 1	12 in.	Mower	$ 5.00
No. 2	15	"	6.00
No. 3	18	"	7.00
No. 4	21	"	8.00
Pony	24	"	18.00



THE MOWER That Will Kill all the Weeds in your lawns. If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders of roots, the grass will become thick, and the weeds will disappear. THE CLIPPER WILL DO IT

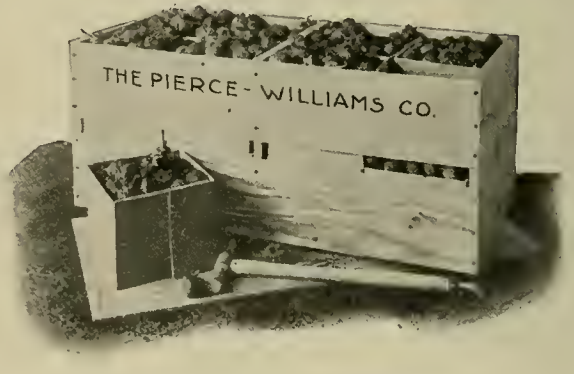
Please Send Draft or Money Order or Registered Letter

FRUIT PACKAGES
Of Every Description

Leslie Boxes and Crates
Hallock Quart and Pint Boxes and Crates
Illinois Quart and Pint Boxes and Crates

Baskets FOR *Peaches, Pears, Plums, Tomatoes, Melons and Grapes*

Boxes FOR *Apples, Pears, Melons, Potatoes and Vegetables*



Michigan Hallock Crate and Boxes

Four-basket Crates for Peaches and Tomatoes
Six-basket Crates for Peaches

Special Prices to Associations and Users of Large Quantities

40-Page Catalogue FREE. Send for it.

So. Haven, Mich. The Pierce-Williams Co., Jonesboro, Ark.

most impossible for the roots to send out feeders.

We have seen whole fields ruined because the bloom was not picked off. This is a case of saving one dollar and losing one hundred or more. We often get letters saying: "I have bought me a a little farm and am in debt, and cannot afford to wait a whole year before getting returns from my plants." These friends are over-anxious to pay off the debt. If they only will be patient with their plants and give them time to develop a large crown system, the debt will be paid much quicker than by trying to get plants at work before they are sufficiently mature.

It is folly to try to hurry nature, and when we expect a plant to produce a crop of berries immediately after it is set out, it is too much like expecting a newly hatched chick to lay eggs. One is quite as reasonable as the other.

AYE, he's the man to pity, his the tale of woe,
Who hath no wish to plant a seed, and help to make it grow;
Whose heart is brick and mortar,
Whose life is soulless barter,
A million miles from God's sweet world—the man without the hoe
—E. C. Tompkins

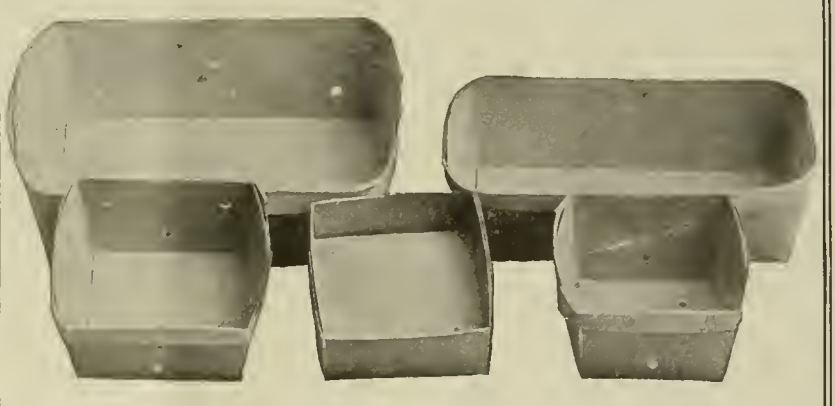
A Note From The Southland

By D. B. Lacey

I AM a novice in the culture of strawberries. In the spring of 1904 I planted one thousand plants and ever since then I have been thoroughly an enthusiast on the subject. From a plot 74 x52 feet I gathered last spring (1905) about 350 quarts of berries and many quarts were lost on account of the wet weather. Strawberry culture is just like the culture of any other kind of plant: you must have well-bred plants and prune, fertilize and cultivate them on scientific principles if you hope to have success with them. The strawberry business is a fascinating, elevating and profitable business for any young man or woman. I intend to plant several thousand more in the spring of 1907.

I can't see why Noah didn't plant some strawberries for his family's use as well as the grape vine, when he went out of the ark into the valley. If the apple was as tempting to Adam while he was in the Garden of Eden, keeping it for the Master, as the strawberry is to mine eye, I can't blame him for "partaking of the forbidden fruit." If there were more young men, yes, and old men, out on the farm raising big red strawberries, there would be fewer suicides and homicides in this country. What is more fascinating than to walk out into the field in the spring and behold a robe of white blossoms, with the air filled with their sweet

BUSY



SHIPPING

The Wax-Lined Paper Berry Baskets
Haven't time to get up "Ad."

SEND IN YOUR ORDER

If you want sample basket and catalogue
It is yours free by writing to

MULLEN BROS. PAPER CO.,
Dept. B. ST. JOSEPH, MICH.

perfume? Any young man can start out with a few thousand strawberry plants and two or three hundred grape vines, other fruits and some poultry in reasonable proximity to a good market and make a good living and save some money.

Maylene, Ala.

Berry-Growing Among the Firs

By Wm. L. Cochran

I CAME here about four years ago and bought a few acres of what is called logged-off land. That means land from which the saw-logs have been taken. But the loggers left the stumps and tops and lots of other bulky stuff for the ranchers to wrestle with, and "clearing" is a serious problem where the timber is as big as it is here.

I had been told that strawberries always did finely on new land here, so the next day after I had bought the place I sent East for some strawberry plants. I had found a place about thirty rods away from where I was clearing, where, by snaking off a couple of tree tops, I had ground enough to plant the strawberries and they were out of my way. When the plants came the little piece was plowed and I set them right away. Then I got busy again clearing and building a house and making a fence, and I thought but little of my strawberries and still less about cultivating them. Finally, one day about three weeks after I had planted the berries, I thought I would go and see how they were coming, but I couldn't find them, as the ferns had come up about as thick as hair on a dog and were two feet high. I simply let them go as they were for about six weeks longer and then I went into the patch with a team and a plow and a chain; and turned them under with the rest of the weeds.

Well, even that experience was not entirely without benefits, because I realized —yes, really realized—that if I was to raise strawberries in this weedy country I had to attend strictly to the strawberry business. So the next spring I again sent to the same place for some more pedigree plants, secured some alley plants from my neighbors, and as I had a nice little clearing by that time I set out a little more than one-eighth of an acre. I kept them fairly well cultivated and rigidly restricted as to buds and blossoms, but not so well restricted as to runners, as I let the latter get the start of me twice and had to cut off too much foliage at the expense of the crowns. That was the patch I got my berries from last summer, and notwithstanding all my blunders, I had the finest crop I ever raised. And everybody that saw them said they beat anything they ever saw. But the pedigree plants were the ones that shone. They bore three times as many berries as the others and were very much larger and better fruit. I had no trouble selling all the berries I had and do not think it will be possible for me to raise more than I can sell at any time. I am going to increase my acreage as fast as I can.

Last spring I set out to see how good a job I could do in berry raising. I manured a piece of ground very heavily with stable manure and plowed it under, then I cultivated it four times with a double-shovel plow and repeated the operation with a five-tooth cultivator, and sowed muriate of potash by hand at the rate of 200 pounds per acre; dragged the field once each way with a spike-tooth drag and I had the best seed bed I ever planted. I set it to strawberry plants of my own propagating from the selected plants received and planted the year before. The field shown herewith is the one I refer to. It was set out in March, 1905, and the photograph was taken August 4, only a little more than four months after setting. Of course, I don't know how they are going to pan out, but I look for a bumper crop when they are ripe.

Snohomish, Wash.

ALL DONE AT THE NORTHLAND
A SIGN OF GOOD WORK
The Northland Shop
Designers, Illustrators and Engravers
Let us figure with you before placing your work
NO. 11 3RD AVE., THREE RIVERS, MICH.

CEDAR Poles, Posts, Ties, Lumber and Shingles
SPECIAL PRICES UPON APPLICATION IN CAR LOTS
SMITH BROS., THREE RIVERS, MICH.

FREE
ALL TOOL STEEL
AGENTS FINE SAMPLE OF
12 TOOLS IN ONE
HATCHET, HAMMER ETC
WRITE FOR OUR FREE OFFER
HAS NO EQUAL
NATIONAL TOOL CO.
3 Rivers, Mich.
No. 2 3d Ave.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and Womeo in the United States. It is
The POULTRY TRIBUNE,
nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and SPECIAL OFFER TO YOU.
R. R. FISHER, Pub., Box 86, Freeport, Ill.

THE farmer at the Minnesota state training school at Red Wing, J. A. Smith, reports that last year the institution raised 3,600 quarts of strawberries on a small patch of three quarters of an acre.

MR. COCHRAN'S HOME AT SNOHOMISH

THE STRAWBERRY PATCH 'MID THE GIANT FIR STUMPS

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

LAST month we quoted words of cheer from two remote friends—one away up on the lofty Sierras, the other in the great forests of the Snohomish country in Washington. These two Pacific Coast friends were most hearty in their expressions of favor for The Strawberry, but no more so than the friend who now writes us from the North Atlantic Coast country a cheery letter from which we quote:

St. John's N. F., Feb. 14, 1906.

The Kellogg Publishing Company:

Gentlemen—Allow me to congratulate you on the production of The Strawberry. The matter is excellent. I would not begrudge $10 for the instruction already given. May continued success be your portion.

C. R. STEER.

An Ohio subscriber places his estimate of the value of The Strawberry even higher than does our New Foundland reader. Here is what he says:

Bellefontaine, Ohio, Feb. 20, 1906.

The January and February numbers of The Strawberry surely are worth many times the price of the paper. I would not take $25 for the information I have received from the two copies. J. J. HOBSON.

And one advertiser in pleased surprise writes us of the extraordinary results he is receiving from his advertising in this magazine, saying:

St. Joseph, Mich., Feb. 7, 1906.

We are continually receiving inquiries brought through our "ad" in The Strawberry, and we also notice the stretch of country through which you circulate. We have received inquiries from Nova Scotia to Oregon. We cannot endorse your magazine too highly as a medium for advertising our articles.

MULLEN BROS.

The universal application of the answers given in this department is referred to in many letters, but one letter in particular is most suggestive on this point. "I had prepared a list of questions for you to answer when The Strawberry came," says this subscriber. "In it I found an answer to nearly every one of them, and so I shall await, before sending the remainder, the coming of the next issue, believing that they will be answered in that number." This brings up another matter—the importance of asking questions. You may depend upon it that you are serving others as well as yourself when you ask anything relating to strawberry production; for there is so little in print concerning this great subject as to make it matter of universal surprise. So let the members of this circle of inquiring students—a circle so large as to include the Florida Keys, Hudson's Bay, San Diego, British Columbia and New Foundland—let the members send in their inquiries, both for their own sakes and the good of others as well, assured that it gives us pleasure to answer them so clearly that all may comprehend and utilize the instruction thus given.

J. S., Stanton, Neb. How shall I handle a patch of ground that is now in alfalfa to get it in the best possible condition for a strawberry bed? It is bottom land but not wet. 2. How will stable manure, mixed with chicken droppings, do for strawberries? Or will it be better to use them separately?

1. The first thing to do is to turn the alfalfa sod under just as early in spring as you can work the soil. Be sure and throw the furrow flat, so that the sod will be turned completely under. Alfalfa is one of the best leguminous crops. It fills the soil with humus and supplies an abundance of nitrogen. Therefore, it will be unnecessary to apply any manure at all. If the soil is made too rich in nitrogen it will make the berries soft and salvy.

2. The chicken droppings and stable manure may be mixed together and applied very lightly on some other soil to good advantage.

J. G. B., Townsend, Tenn. Enclosed please find $1 for The Strawberry, and please answer the following in the Correspondence department: Should I raise my own strawberry plants to set new beds? If so how should they be managed? If not, why not?

Everyone who grows strawberries on a large scale should propagate some of his own plants. To prepare a propagating bed, get your soil well filled with humus. This is best furnished by growing a crop of cowpeas or some other legume, which should be chopped up and worked into the soil. After this is done a light coating of stable manure should be applied in the winter months. In the spring this should be turned under and thoroughly incorporated with the soil. After the ground is perfectly fine mark your rows four feet apart and set plants two and a half to three feet apart in the rows. When the mother plants become well established in the soil, they may be permitted to make runners at once and to mature as many strong runners as they will. But never allow any mother plant to start making runners until it is strong and vigorous itself. And don't, under any circumstances, try to grow fruit and plants on the same bed.

T. H., Austin, Ill. Is there any way I can tell by the thermometer in the evening if there will be frost during the night? 2. Will smoke destroy the injurious effect of frost upon bloom, and how may I make a smudge to prevent frost?

1. There is no way in which to tell by the action of the thermometer what is to come; it merely registers conditions of temperature as they are.

2. Smoke is effective as a preventive of injurious action by frost, as it forms a cloud over the plants. In making a smudge you may use tar put on coarse, damp manure. The thing wanted is the heaviest clouds of smoke possible to create.

G. S. F., Greensburg, Pa. Have just bought a farm of thirty-seven acres and wish to put out some strawberries, but I am afraid that the field I wish to use is too poor. As I shall not get possession of the farm until April will not be able to put any manure on the ground this spring in time for it to rot. Now I wish you to tell me if there is any way I can get this ground in order to plant a bed of strawberries this spring?

As you cannot get possession of this farm until April we advise you to break it up, work the soil up finely, then set your plants, and after this is done you may then scatter well-decayed manure between the rows and work into the soil when cultivating the berries.

F. G. M., Fabius, N. Y. Wish you would tell us some time in The Strawberry what a grower can do to keep the robins from taking so many berries.

This is not an easy thing to do, because we do not know what one can do to keep the robins from eating the strawberries. We cannot blame the robins for eating strawberries; they are so good. About the only thing that can be done is to put up a scare-crow, fixing a red flag so that it will keep floating in the air. Sometimes this is quite effective, but not for long. The birds get accustomed to it and they will take the berries in spite

A KALAMAZOO DIRECT TO YOU

WHY not *save money* in your stove and range buying?

Why not get a really *good* stove or range while you are about it?

Here's a Kalamazoo Royal Steel Range—one of the many of the Kalamazoo-direct-to-you family.

It is guaranteed, under a $20,000 bank bond to be *strictly high grade in every respect.*

The body is made of Wellsville blue polished steel—the highest grade steel procurable.

Not an ounce of scrap iron enters into it. The tops and centers are cut and braced in such a manner that we guarantee them against warping for *five years.*

The linings are heavy and the flues and all other parts where it is necessary are lined with *genuine* asbestos, held between two sheets of steel.

The oven is square and large, with a bottom that *cannot* warp or "buckle." The oven ventilation is *perfect*, making it a quick and even baker.

The oven is equipped with patented oven thermometer which gives perfect control of the oven's temperature and makes good baking and roasting an easy matter. It saves time, trouble, and fuel, and is guaranteed not to get out of order.

The hot water reservoir is large; is lined with white enamel and is easily removed for cleaning.

The fire box is equipped with either a duplex or a dock ash grate as desired, and either hard or soft coal or coke or wood may be used for fuel.

It is handsomely finished, all the ornamental parts being heavily nickeled. We do all our own nickel-plating, and *do it right.*

The riveting, the mounting, the finishing, are all done *by hand*, by expert workmen, and we guarantee that there is not a better designed, a better made, a better finished, or a more durable stove or range in the world, than is *the Kalamazoo.*

Oven Thermometer

Quality is our first consideration, and our 32 years experience in building and selling stoves and ranges has taught us *how* to make a range which we can put in comparison with any other in the world.

Quality should also be *your* first consideration. You cannot afford to buy a *poor* range at any price, especially—*and here's the point*—

When you can buy this high grade Kalamazoo—or any other of the Kalamazoo line of ranges, cook stoves, base burners and heating stoves of all kinds—*at a price lower than your dealer pays for stoves and ranges not the equal of the Kalamazoo.* Please read that again.

You get a Kalamazoo, *freight prepaid*, on a 360 days approval test, guaranteed under a $20,000 bank bond, with privilege of returning to us at any time within 360 days, if it shows any faults or defects—and all at a *less price* than your dealer pays for many stoves and ranges not nearly so good.

Here's the secret:

We are manufacturers—actual manufacturers and we sell to you *direct from our factory* at *lowest* factory prices, saving you all dealers', jobbers', agents', and middlemen's profits and commissions.

We have more than 50,000 customers in all parts of the United States. Their letters show that they have saved from $5 to $40 by buying a Kalamazoo direct from our factory.

We will be glad to send you the names of our customers in your vicinity. Let *them* tell you what *they* think.

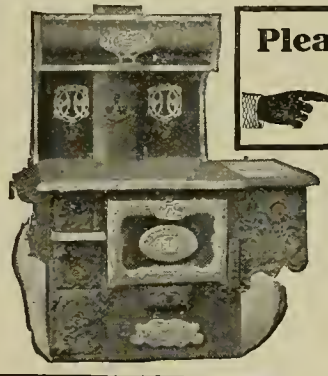
The Kalamazoo line is *complete*—embracing ranges, cook stoves, base burners and heaters for fuel of all sorts, all of late design, handsome pattern and beautiful finish.

Send for our catalogue.

You will find in it the stove or range exactly suited to your purpose, and you will be able to purchase it at a money-saving price.

Don't you think it a proposition worth looking into? Let us send you our free catalogue and price list. You'll be interested and pleased.

Ask for Catalogue No. 348.



Please Remember:

We are actual manufacturers, not mail order dealers.
We have more than 50,000 customers—all satisfied.
You run no risk, as we give you a 360 days approval test.
We pay the freight.
We make you actual factory prices.
We sell you a stove or range not excelled by any in the world.

Kalamazoo Stove Co., Mfrs., Kalamazoo, Mich.

of the scare-crow. And we might add a word for the robins, which are among the most useful of our friends, eating the grub worm and other insect destroyers of the strawberry in great numbers.

J. A. W., Bowbells, N. D. I find some vacancies in my strawberry rows, and I wish to fill in these vacancies from my own plants. Shall I dig them this fall and heel in till spring, or how may I manage them.

It will be a good plan to take enough plants from each row to fill in the vacancies, but do not disturb the plants until spring, when they are in a dormant state. In removing them take up enough earth with them to prevent any check in growth. By so doing they will be able to produce a few berries without much injury.

E. C., Monson, Mass. Are the common blackeye pea good to sow for plowing under? Is there any reason why I should not grow two crops of peas before sowing rye?

Peas of any kind belong to the family of legumes and all are excellent soil-improvers. Anything that develops a pod is a legume, and all legumes have the power to draw the free nitrogen from the air and store it in their roots. This free nitrogen is transformed into available plant food by bacteria, which acts upon it much as yeast germs do in bread. The vines, or woody part of the peas, add humus to the soil. Humus warms the earth, thus encouraging bacterial activity and preserving a more even temperature; makes it more friable, adds to its spongy nature so that it retains moisture better and causes it to yield moisture more evenly and for longer periods to the plant. It will be unnecessary to plow under two crops of cowpeas before sowing rye in preparing your soil for strawberries. The expense would be greater than the increased returns would justify.

J. J. H., Bellefontaine, Ohio. How would it do to sprinkle fertilizer around the berries, say in the month of June or July, and cultivate it in with a hoe, or would you advise putting it in before the berries are set out? 2. Would you advise cutting the first runners off, and letting the mother plant get a good start, or let the "children" go to making their own living as soon as possible?

You would get better results by sprinkling the fertilizer around the plants early in the spring, but do not put it on very heavily and not very close to the plants. Another good way is to make a furrow and scatter the fertilizer along in it; cultivate it in and then set the plants where the furrow was made after it has been filled in. While cultivating the furrow in, mix the soil and fertilizer well together and the plants will get the full benefit of it.

2. If the mother plant has made a good growth and seems strong and healthy, it will be all right to let the first runners start, but if they seem to be lagging in any way, we would cut the first runners off. Just as soon as the children get their roots into the soil they start feeding from mother earth. This lessens the strain on the mother plants.

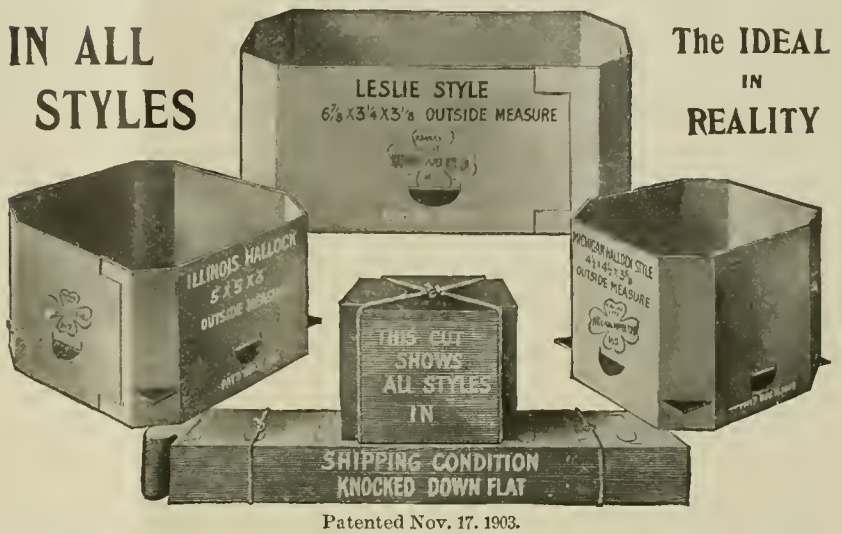
C. H., Creighton, Mo. 1. Will Excelsior, Warfield and Lovett yield as well in hills as the Crescent? 2. How should I mate the following varieties for best results: Excelsior, Warfield, Crescent, Lovett, Senator Dunlap, Haverland, Gandy, Pride of Michigan and Sample? 3. Will it be all right to keep all runners cut off until the first or middle of July?

1. The varieties you name do well when set in hills; but we prefer that they be grown in single or double hedge rows. The Excelsior does splendidly in hills, because it builds up a large foliage and crown system, same as does the Crescent.

2. First set Excelsior, then follow with Warfield, Dunlap, Haverland, Lovett, Sample, Pride of Michigan and Gandy. In following this order you

may set them in one, two or three rows of each, as you choose.

3 We prefer to let the runners start the latter part of June. By this time the mother plants should be in prime condition to send out strong, vigorous plants. By doing this it gives the young plants more time to build up crown systems, thus increasing your prospects for a large crop of berries.



THE BEST AND CHEAPEST. UNIVERSALLY ADMIRED.

NATIONAL BERRY BOX

IN ALL STYLES

The IDEAL IN REALITY

Patented Nov. 17. 1903.

NO skinned fruit; no nailing; no mildew; no warping; no splitting; no waste; no loss. A fruit preserver, folded in an instant. A clean, glossy, substantial package, aiding in the sale of fruits. Made from **Smooth Paper Stock,** coated on both sides with **odorless** and **tasteless best parafine wax.**

First Year's Results:
Sales in 29 States and communication with 44 States of the Union.

LESLIE STYLE GREATLY IMPROVED—double reinforced on bottom edge, which gives also EXTRA support for bottom on all sides. Folded-up sample sent on receipt of ten cents

WRITE FOR CIRCULARS AND PRICE-LIST AND READ UNSOLICITED TESTIMONIALS.

NATIONAL PAPER BOX CO.

KANSAS CITY, MISSOURI.

S. B. R., Elliott, Ia. I have but one lot 60x120 feet, and on this is our home and out buildings. We have a small patch of ground 13x30 feet square, that we would like to set to berries. It is the richest of black, sandy loam—the best soil in Iowa. It is so rich in some things at least, that tomatoes will do nothing but vine—no fruit for two years. But such vines! It is new ground two years from the sod. I set it to strawberries last fall, just at the beginning of the only dry spell we had last year, and had to leave home for a few days, just long enough to spoil all the plants—did not save one. Now what I would like you to tell me is the best kind of plants, and how many I need to fill up this piece of ground, and the best way to set them to get the best results. We do not care for market berries, but the best for the table of a preacher who thinks he likes strawberries.

As your soil is so excessively rich we advise you to use no stable manure and to set varieties that are heavy feeders—those that make a light foliage and require strong soil—such varieties as August Luther, Clyde, Splendid, Aroma and Haverland. Most of these produce rich, sweet berries, and they are all very prolific; they will suit a preacher or anybody else, no matter how fastidious he may be. It will require about 100 plants to set your little patch. Make the rows only two feet apart and set plants every fifteen or twenty inches in the row.

S. A. B., Medina, N. Y. How much fertilizer per acre shall I apply on sandy loam land that will, under proper conditions, raise 100 bushels of ears of corn, and about what should it analyze? I can't get barnyard manure. 2. How far apart should the rows be on a small plot to be worked by hand in hedge rows to get best results? And how far when horse cultivator is to be used?

The best fertilizer for sandy loam is decayed stable manure, applied at the rate of about ten or twelve tons per acre. As you cannot get stable manure, we hardly believe it will be necessary for you to apply any commercial fertilizers, as we note by your letter that this piece of ground produces about 100 bushels of corn to the acre. This is evidence that it also will produce a large yield of berries.

2. As you intend to work the berries by hand you can make the rows two feet apart and set the plants twelve to fifteen inches apart in the row. If a horse cultivator is to be used, then the rows should be three and one-half feet apart and the plants set twenty-four inches apart in the row.

C. S K., East Stroudsburg, Pa. I have bought thirty acres of land and am going into the strawberry and poultry business. This land is sandy loam and at one time was used for trucking, but has been run down for the past eight years. What varieties should I plant, and have you any other suggestions to offer?

You certainly are starting out along right lines. We know of no other enterprise that may be started on so little capital or that offers larger opportunities to enterprise and intelligent effort than does the combination of strawberries and chickens. When your strawberry business is dull the poultry gives you a continuous income through the sale of eggs, broilers and breeding stock, besides making an abundance of the very best of fertilizer for the strawberry beds. So many of our friends are making a large success of this combination that it gives us pleasure to learn of others engaging in the same work. Our first suggestion is, however, to set no more than one or two acres in berries the first year. We should set more largely of standard varieties, such as Excelsior, August Luther, Tennessee Prolific, Crescent, Warfield, Parsons' Beauty, Senator Dunlap, Haverland, Aroma and Sample. Then we advise setting aside a small plot for experimental purposes, where you may test a number of the newer varieties. We make this suggestion because we believe

it wise to go slowly at the start and develop the business as your knowledge of it increases. And if we may be permitted to say it, we think you will find the same rule will hold good in the poultry side of your enterprise.

G. H., Lincoln, Neb. Suppose I set two or more varieties of plants in order to pollenize properly, what variety would the fruit be? For instance; if I should plant Pride of Michigan and Mark Hanna, should I have Mark Hanna berries or Pride of Michigan, or neither or both? 2. If the Warfield will not fruit alone how can I get the Warfield berry?

Two varieties of different sexes are set side by side for the purposes of pollenation. It in no way affects or changes the type of the berry. Each variety will produce its own peculiar fruit. But if you were to plant the seed from the Mark Hanna berry, that had been pollenized by Pride of Michigan, the result would be a cross between the two varieties.

2. You may get the Warfield berry by setting Warfield plants beside some bisexual plant of its own season, like Texas, Dunlap or Splendid.

A. C. R., Tidnish, N. S. I have cut all runners off my strawberry plants except enough to form a single-hedge row. Will there be enough plants form after this date (September 2) to transplant next spring? 2. Will the ground where the plants now are need manure this fall or next spring?

1. Never try to grow plants and fruit in the same bed. It is as impossible for a plant successfully to yield fruit and reproduce itself at the same time as it would be for a cow to give milk throughout the entire period of gestation. Even if this were possible, the plant that would form after the first of September would not have time fully to develop itself.

2. A light dressing of manure just before you mulch the plants would act as a stimulant and aid to produce a large foliage, and this in turn would increase the size of the berries.

R. H., Watertown, N. Y. Last spring I put nitrate of soda on my strawberries at the rate of seventy pounds to the acre; scattered it along the rows. My berries were a little soft. Did the nitrate of soda cause this condition? 2. I am afraid the soil in which I set the plants last spring is hardly rich enough to raise perfect berries. Would you advise the application of a good fertilizer, strong in potash, this fall? 3. I want some good raspberry plants. Will you please advise me where I may secure them.

1. Your mistake was in applying so large a quantity of nitrate of soda at one time, as it is a powerful stimulant and becomes immediately available as soon as dissolved. Your plants overfed, and this explains why your berries were soft. The proper way is to use eighty pounds to the acre, making two applications, the first one just as growth begins in the spring, which will feed the plants until the buds form. The second application should be made before the buds open. This will carry the plants through the fruiting season.

2. It is not a good plan to apply commercial fertilizer in the fall, especially if it is a mixture that becomes easily available as plant food, as the potash is liable to leach away and waste. It would be better to apply some complete brand in the spring just as you uncover the plants.

3. You may secure raspberry bushes from any one of our advertisers in The Strawberry who grows trees and bush fruits, certain of getting what is desired and at fair prices.

W. A. K., Jackson Summit, Pa. The ground on which I wish to plant strawberries is buckwheat stubble. It has a gradual slope to the west. The soil is in a fairly good condition of fertility. Under proper treatment do you think the soil favorable for a crop? 2. I have plenty of both cow and horse manure, but fear there is some hay or weed seed in it. Have also plenty of good hen manure that has no seeds in it and is under shelter. Which, if any, of the above-named manures should I use and how much? 3. Should I put it in the row or broadcast? Are wood ashes mixed with hen manure or any other manure good as a fertilizer? In what proportions should they be? 4. I have selected Haverland as a pistillate and New York for bisexual; will the two kinds mate with good results? If not what other (B) variety would you advise for Haverland? I have the Sample and Senator Dunlap; never have had them together, but thought I would try them this year. Will they make a productive and satisfactory match?

1. There is nothing better to grow in advance of strawberries than buckwheat, as it loosens up the soil and puts it in fine condition for the plants.

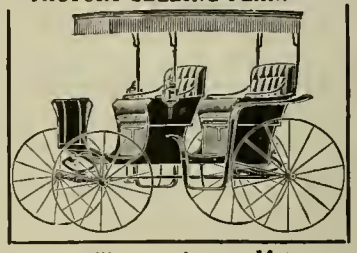
2. We would advise you to scatter manure lightly over this piece of ground, then turn it under in the spring and work it up thoroughly with the soil before setting the plants. Most any kind of stable manure will contain some weed seeds, but these will give you no trouble if you cultivate every week and hoe occasionally.

3. The chicken droppings will also be good, but you must apply them very lightly. All manure should be scattered broad cast. Do not mix your wood ashes with the manure. Apply them separately at the rate of about forty bushels to the acre. These should also be well worked into the soil before setting the plants. Apply the ashes after the ground has been broken up.

4. Haverland and New York mate fairly well together, but if you will use

Factory Prices

ON THIS VEHICLE ON A SATISFACTORY SELLING PLAN.



The first selling step is to send it to you on 30 days free trial. If it stands the racket for 30 days and appears to be right, you pay us its price, but we are not released. We give you a personal guarantee, good for three years. Personal, mind you; straight from the factory to you, the user.

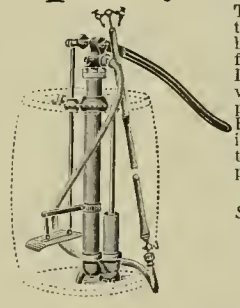
We are not mail order dealers, but manufacturers. We make every vehicle we sell, and sell every one we make direct to the users.

Well, this three-year guarantee: You are free to act on it any time. If any defect appears, if it is not all it should be, or all we represent it to be, or you are not satisfied with your purchase, you can have your money back for the asking.

You see we give you every advantage; lowest factory price, buy with your eyes open, seeing and trying, and give you opportunity to protect yourself against latent defects three full years. We sell all styles of vehicles this way—all direct, and all on same terms and guarantee. Just now we are offering two special bargains. Our catalogue explains them all. Write us for it.

The Progressive Vehicle Mfg. Co.,
Dept. V, Ft. Wayne, Indiana.

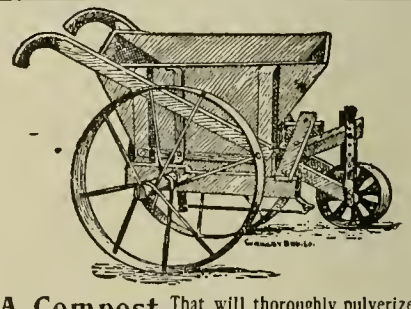
Spray or Surrender



That is the ultimatum that insects and fungi have served on every fruit grower of America If you do not heed the warning you will not get profits from your orchard Every man who sprays intelligently at the proper time finds it the most profitable operation on the farm

Send for illustrated catalog of the Eclipse Spray Pumps and Outfits

MORRILL & MORLEY,
Benton Harbor. Mich.



A Compost Drill—That will thoroughly pulverize and evenly distribute from one hundred pounds to ten tons per acre; made in two sizes by

J. M. LINDSEY, Crystal Springs, Ga.

Seed Sweet Potatoes

The Cuban Succeeds
on rich black soil
Where Others Fail

For descriptive price list of this and 12 other improved varieties write EDWIN H. RIEHL, North Alton, Ill.

850,000 GRAPE VINES

69 Varieties. Also Small Fruits, Trees, &c. Best rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. LEWIS ROESCH, FREDONIA, N.Y.

"Good Enough" is Not Good Enough

WHEN IT COMES TO STRAWBERRY PLANTS

Only the Best Will Pay

That is Why You Should Set the Kellogg Strain of

Thoroughbred Pedigree Plants

THEY ARE THE BEST

BECAUSE they are selected from the mother plants that have won the world's greatest fruiting record.

BECAUSE they have been scientifically sprayed, which insures you against destructive insects or fungous spores.

BECAUSE they are carefully mulched before freezing, insuring a well-calloused root and perfectly dormant plant. Every one of them will grow if properly set out.

BECAUSE they will produce more berries from one acre than two acres will grow from the "other kind"

YOU cannot afford to give up your valuable land and put a lot of hard work on poorly developed plants just because they are cheap. The cheapest plants are those which have a perfect balance in fruit and foliage---the kind that produce the big paying crops. If you want this kind of plants you must send us your order at once, as our old customers, who have used our plants for years and know the value of our pedigree plants, are ordering heavier this season than ever before, and we are sure that our entire stock of plants, the largest and best ever grown, will be engaged long before setting time.

If you are undecided as to varieties, or do not know how to mate them, our expert will assist you to make the best selection for your soil, climate and particular purpose. Tell us whether you intend them for market or for home use.

R. M. Kellogg Company, 118 Portage Ave., Three Rivers, Mich.

Haverland and Lovett's Early or Parsons' Beauty you will get better results. If you will set Sample in rows between Senator Dunlap and Aroma they will mate it perfectly.

T. W. H., Westchester, Pa. I have a lot of first-class hen manure and I want to mix it with either land plaster or cotton-seed meal. Please tell me which of the two is the better to make an ideal fertilizer for strawberries and when the best time to put it on?

Mix the hen manure and land plaster well together. Use no cotton-seed meal with the chicken droppings, as this combination would produce an excess of nitrogen. The best time to apply the fertilizer is in the spring after the ground has been broken up. Scatter evenly and lightly, and mix thoroughly with the soil before setting the plants.

W. R. T., Rhinebeck, N. Y. I am growing some strawberries by the hill system. In removing the runners should they be cut off, or may I pull them off without injury to the parent plant? 2. What varieties are best adapted to the hill system?

1. In removing the runners it is much better to cut them off with a knife or pinch them off with the thumb nail. Pulling them off would do no particular injury after the mother plant becomes well established in the soil. Most of them may be cut off with the hoe while working the plants.

2. In growing any variety in the hill system you should have your soil very rich and the plants should be set so close in the row that the tops would almost touch each other when fully developed. Excelsior, Texas, Parsons' Beauty, Senator Dunlap, Pride of Michigan, Dornan, Marshall and Mark Hanna develop wonderfully and give big returns when grown in the hill.

W. H. B., LaBelle, Mo. I have a strawberry patch; this spring will be its third crop. I manured this piece of ground heavily and turned it under in the spring, then set it to plants again. In cultivating them that summer I noticed that much of the manure was not decayed and it was not well mixed with the soil. Some of the plants grew and did well, while others failed to make a thrifty growth. Why did not all the plants make an equal growth?

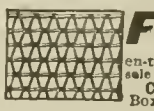
The reason some of your plants did poorly while others did well, is that you did not evenly distribute the manure and thoroughly incorporate it in the soil before setting the plants. Some of the plants have been set where there were large clumps of manure under them, which prevented water from rising by capillary action. The plants also became "sick" by feeding upon the rankest part of the manure.

A. P., Sheboygan Falls, Wis. Last year my strawberry leaves turned red in spots and some times the whole leaf became affected. This occurred early in the season. What is the trouble and the cure?

Your plants are affected by rust—a fungous growth that spreads by means of spores. Bordeaux mixture, sprayed at the first sight of the enemy, will prevent its spread. See article on "Insect and Fungous Pests of the Strawberry" in this issue, for methods of mixing and applying remedies.

BARGAINS IN PLANTS & TREES

Hardy Varieties: Strawberry, Raspberry, Blackberry, Currant and Grape Plants, Apple and Plum Trees, Seeds, Roses, etc., at half agent's prices. Bargain sheet free. North Star Plant Farms, Cokato, Minn.



FENCE STRONGEST MADE. Bull-strong chicken-tight. Sold to the Farmer at Wholesale Prices. Fully warranted. Catalog free COILED SPRING FENCE CO., Box 16G, Winchester, Indiana.

Overflow Correspondence School

IT is getting to be a regular thing to have an over-flow session—members coming in with their problems after school is out. But the teacher, always at his desk, has heard and answered all he could in the time and space at command, although some very interesting and helpful ones cannot be gone into until the April term. 'Twill be a good rule to follow to get to school with your questions just as early as possible.

M. W., Xenia, Ohio. This is the second year for our bed of strawberries. Last year we used stable manure liberally, worked in wood ashes plentifully and mulched with leaves and wheat straw. Last spring our berries were everything that was to be desired, but they were the first crop from the bed. This spring we do not expect to make application of ashes as we think the soil contains enough, but we expect to use commercial fertilizer. Will you kindly tell us when is the best time to apply it and about what quantity per acre is needed?

As you have used stabe manure and wood ashes quite liberally, we hardly believe that it will be necessary to use any other fertilizers. After the berries are all picked mow the vines off, and when dry burn over the field and, as you will have picked the second crop, this bed should be turned under and the land planted to some other crop.

L. E. L., Renville, Minn. In the spring of 1904 I set out about fifty plants of several varieties of strawberries, and as an experiment tried the single-hill culture. I picked all blossoms and allowed no runners to form, making it strictly single-hill cultivation. They grew to wonderful size and a great sight to look at. About November 1, the weather being fine, they threw out buds and blossomed. In the spring of 1905 I got a very poor crop of berries off of them. What I would like to know, as a matter of curiosity, is what caused them to bloom in the fall? 1. I have often heard stated that air-slaked lime has been used as a fertilizer. Will you kindly let us know what kind of soil it would be best adapted for and of what use it would be on strawberry ground? 2. Where can nitrate of soda be purchased, and what is its cost per 100 pounds?

From what you say we conclude that you have overdone things in the way of applying nitrogenous manure, and have failed to apply a sufficient quantity of phosphorus and potassium. This has forced all the strength of your plants into making vegetative growth at the expense of the fruit buds. Stable manure is an excellent fertilizer, but like many other good things there is danger of getting too much of it. Almost any variety of plants will bloom in the fall if weather conditions are favorable, but this should not interfere with the crop the following spring, provided the plants are supplied with a properly balanced plant food. We are sure you will get better results in single or double hedge rows than in hills.

1. Air-slaked lime contains no fertilizing value in itself, but it has a wonderful effect upon the soil in making plant food available. It will give good results either on clay or sandy loam, but never should be used on black, rich soil.

2. Nitrate of soda may be bought of any fertilizing company whose advertisement is found in The Strawberry. It costs about $3.50 per hundred weight.

M. T. A., Rockland, Mass. Do you think that one can pay $5 a cord for manure besides the cartage and make strawberries a paying crop? 2. Would Senator Dunlap on one side of Sample and Midnight on the other be a good way to mate? 3. If one is doing the cultivating by hand would thirty inches be too close for rows? Would there be enough space for the double-hedge system in that manner of planting? I have only about a quarter of an acre for berries, and want to make the most of it.

While the sum named is a high price to pay for manure, yet we are sure it would prove a good investment, because it furnishes both humus and plant food. Commercial fertilizers always give better results when used in connection with manure than when used alone.

2. The Sample set in rows between Dunlap and Midnight should give extra-good results.

3. If you intend to cultivate with hand tools it will be all right to place the rows thirty inches apart, and when the double-hedge row is formed there will still be plenty of room between the rows for pickers.

J. B., Brooklyn, Fla. I have a piece of ground now ready to set plants. They are Lady Thompson. My ground is a light, sandy soil. Last spring I plowed under a thick growth of grass and weeds and planted cow-peas. When they were nearly ripe and peas picked, I plowed the vines under and planted another crop of peas and plowed them under. Last December I put on a good coat of well-rotted manure—cow and horse manure mixed—so that the ground was well covered. I plowed that under, smoothed the ground with a float then spread on broadcast wood ashes at the rate of about 100 bushels per acre and harrowed that in with a tooth harrow. I would like your advice as to anything else to put on during the summer and fall, and what should it be. I am certainly pleased with The Strawberry; it is here to stay.

Your soil should be in ideal condition for strawberry plants, and there is nothing more that you should do except to apply plenty of muscle in the work of cultivation and hoeing. As the ground is so rich the plants may be set more thickly than should be done on poorer soil. Each mother plant could make at least eight strong runner plants and these can be layered in such a way as to form a double-hedge row. We hope you may be successful in winning that blue ribbon.

THE magnitude of the Elkhart Carriage and Harness Co.'s business may be understood when their proud claim to be "the largest manufacturers of vehicles and harness in the world selling exclusively to the consumer" is known. We are just in receipt of the 1906 catalogue of this mammoth enterprise, and judging from its size and the variety and character of its manufactures this claim is none too strong. For the purposes of strawberry growers the delivery wagons made by this company are of special interest. The company has a line particularly suited to the needs of the berry men who must get their products to market with the least jar and most dispatch, and if anybody desires to have vehicles built on special lines, the Elkhart people always are glad to quote prices and do such a job as must please the most exacting. Write for catalogue 57, addressing the company at Elkhart, Ind. You will receive a beautiful book and one that may help you in your business.

Our Factory Price

Saves You $30.

THE PRICE MOVES THEM

This is a special for 1906 that we are building by hundreds. And they are going as fast as we can build them. You will pay a dealer $60 more. No such bargain ever thought of by a mail order house. Our old time liberal terms

30 DAYS FREE TRIAL

with right to return at our expense if it's not a bargain. Great bargains on full line light vehicles. Send for free catalog. Also special bargain circular.

KALAMAZOO CARRIAGE & HARNESS CO., Box 244, Kalamazoo, Mich.

Paint Without Oil

Remarkable Discovery that Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package and a Big Book Telling All About Paints and Paint-Making are Mailed Free to Everybody Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes to you a dry powder and all that is required is cold water to make a paint weatherproof, fireproof and as durable as oil paint. It adheres to any surface, wood, stone or brick, it spreads and looks like oil paint and yet only costs one fourth as much. For many purposes it is much better than oil paint and is indispensable to every property owner.

Write to Mr. A. L. Rice, 550 North St, Adams, N. Y., and he will send you a free trial of his new discovery, together with color cards and his valuable book on Painting, all free. This book lets you into all the secrets of paint-making, exposes fake paints, tells you what kind of paint to use for different purposes and shows you how you can save and make a good many dollars. Write today and the book and free trial of Paint will be sent you by return mail.

BEEBE'S SINGLE COMB WHITE LEGHORNS ARE THE BEST HEAVY TESTED LAYERS

EGGS

15, $1.00; 20, $3.00; 100, $6.00.

H. C. Beebe, - Route 5, - Canton, Illinois.

Mention "The Strawberry" when writing

Insect and Fungous Enemies of the Strawberry
And How to Keep Them Down

THAT prevention is better than cure nowhere is more emphatically impressed than in dealing with the insect enemies of the strawberry. And it is a great satisfaction to know that, instead of its being a hopeless task to keep one's fields rid of these pests, it is a very simple matter, indeed, if you are careful to see that they never are permitted to get a foothold.

Right now is the time to get to work with your measures for preventing such an undesirable condition. In order that our readers may know these enemies when they see them, we give herewith a description of the particular enemies of the strawberry, and in order that they may know exactly how to go about it to keep them down, we give directions for their prevention or cure.

The Aphis or Louse

If black ants are seen working around the plants it is a sure indication that lice are at work down at the lower end of the roots. The lice are carried from the roots of one plant to another by these ants. These aphides multiply very rapidly and will become quite troublesome if not looked after in time. The remedy for these lice is this: Before setting the plants dip them into a strong tobacco tea made by boiling one pound of tobacco stems in five gallons of water for twenty minutes. The roots should be dipped up to the crown. This will kill the lice if any be present, and requires but a very little time.

The Strawberry Beetle

The strawberry beetle is a small dark-colored bug, which like most all other troublesome insects, generally is found in old, neglected strawberry fields. The beetle hibernates under old dead grass and any kind of litter. For this reason the best preventive is clean cultivation and rotation of crops. The beetle feeds upon the leaves while their larvæ works on the fibrous roots of the plants. As the beetle is a chewing insect it easily may be controlled by spraying with Paris green.

The Leaf Roller

The strawberry leaf-roller is hatched from eggs which are laid in the spring by a reddish brown moth. The larva attains its full growth in June and is brownish or greenish in color. It is nearly one-half inch long and has a shiny yellowish head. It folds the leaves by bringing the upper edges together and fastens them by a silken web. There are three or four broods each year. This pest, like nearly all others, may easily be destroyed by burning the entire field over after fruiting time. Spraying with Paris green also will destroy the leaf roller, if the spraying be done before the leaf is folded together; but after the leaf-roller has enclosed itself in the leaf it is difficult to put poison where it will get it.

The Strawberry Slug

This insect comes from a four-winged fly which deposits its eggs within the leaf tissues or on the stem. The larvæ soon hatch and feed upon the leaf, gnawing circular holes through it and making it look like a veil. In five or six weeks they develop into a full-grown green worm about three-fourths of an inch long. They seem to have a particular love for young plants previous to fruiting. A good spraying with Paris green or any arsenite solution will destroy them. Burning over after fruit is gathered will help control it.

SPRAYING IS THE ONLY EFFECTIVE WAY TO ROUT THE ENEMY

The White Grub

The May beetle or June bug is responsible for the white grub. These insects delight in feeding upon plants that have wiry roots, and are most generally found in soil where timothy sod has been growing for years. Old manure piles which have stood for some time are generally the hibernating place for them.

Inasmuch as the white grub has an underground habit, it is rather difficult to get at them. Just as soon as they attack the root of a strawberry plant, the foliage will wilt, having the appearance of suffering for moisture. About the only remedy is to dig down to the roots of the plant upon first sight of this wilting, and kill the grub. If this is done at once, the plant often can be saved.

One of the best preventives is to break up your ground in the fall, and let it stand in the rough over winter. This exposes the grubs to freezing and thawing, and also the attacks of birds and other lovers of their carcasses. Hogs, chickens and turkeys will leave corn to eat the grubs, and if your piece of ground is situated so these friends can be turned in, they will rout and scratch a large per centage of the grubs up and devour them.

The grub when full grown is nearly one inch long, and about as large through the body as a lead pencil. They are generlly white, with yellowish or brownish head. Rag weeds and foul stuff of any kind afford them a hiding place. Here is another reason why you should practice clean cultivation.

The Sawfly

The sawfly is a small dull-colored worm about one-fourth inch long. It has the appearance of being coated with mildew or milkish-colored substance. They most generally put in their first appearance the latter part of May, and are found on the under side or shady part of the leaves, curled up like a snail. Their presence is easily detected as the foliage will be eaten full of holes. The best way to get rid of this pest is by a liberal dose of Paris green. One feed is generally enough. The sawfly is also a lover of raspberry foliage.

The Strawberry Crown Borer

This is a troublesome insect if once it gets into a bed of plants. The larva is a white footless grub with a white head. It is one-fifth of an inch long and lives in the crown of the plants. The adult insect is a dark-colored snout-beetle, and is one-fifth of an inch long. They can not fly and the only way they can be transferred from one field to another is through affected plants. Avoid setting your beds where old plants have been turned under, and never take plants from an infested field.

The Strawberry-Crown Miner

The miner is a caterpillar, small in size and reddish in color, and its habit is to bore the strawberry crown, making irregular channels through it in all directions. Early summer finds it full grown, when it passes into a chrysalis state, emerging two or three weeks later as a

small, dark-gray moth. As yet no remedy has been discovered for the miner. Badly infested fields should be burned over and turned under either in the fall or early spring.

Two Minor Pests

There also are the tarnish plant bug and strawberrry weevil. You never will be troubled with these if you will see to it that your vines are carefully mowed off after the crop is gathered and burned. Be sure that the straw or other mulching is loosened up so that it will make a quick, hot fire. This is the most effective remedy known, and it is a fine preventive, freeing the fields for the following season.

Preventives and Remedies

The remedy for leaf-eating insects is Paris green, which should be prepared as follows: Take one pound of unslaked lime; put over this seven ounces of Paris green and pour over this two gallons of hot water; add to this water enough to make fifty gallons.

For fungous growths, such as mildew, blight and rust, start spraying at first sight with Bordeaux mixture, which is prepared as follows: Four pounds lime slaked in four gallons of hot water; four pounds of blue vitriol dissolved in four gallons of water; to this add sufficient water to make one barrel of forty gallons.

Where both fungous growths and insect pests trouble, the Paris green may be added to the Bordeaux mixture and applied at one spraying.

Much importance attaches to the method of applying these remedies. Some people practice a false economy by neglecting to get the proper conveniences for this work. They apply these mixtures with a broom, or with a sprinkling pot. In most cases this work is entirely lost, so far as any benefits being derived from it are concerned. These mixtures must, to be effective, be applied in a fine spray, and with as much force as possible, and the only way this may be done is by the use of some one of the modern spraying outfits. These are made in all sizes, so that every strawberry grower may accommodate himself and his necessities by selecting one which best suits him.

After the fruit is all picked mow off the vines and when they are perfectly dry set fire to it on the side from which the wind is coming and let it sweep over the entire bed.

Inasmuch as the burning over of the fields is so important and so destructive of insects, larvæ and fungous spores, we know it will pay everyone having a strawberry bed to see that these instructions are carried out. Complete and plain instructions will be given in The Strawberry before the time arrives for the work to be done.

And don't forget the primary importance of clean and thorough cultivation. There are fewer insects to combat in the strawberry field than any other. Let each grower see to it that these encouraging conditions are maintained in his own field.

In order to assist you along these lines we suggest some "don'ts."

Don't let a bed of strawberry plants run wild after you have fruited it for several years. Burn it off clean.

Don't take your plants from an old fruiting bed, as the insects and fungous spores are bound to go with the plants.

Don't allow plants in your fruiting beds to mat thickly.

Don't allow weeds and grass to have their home among your plants.

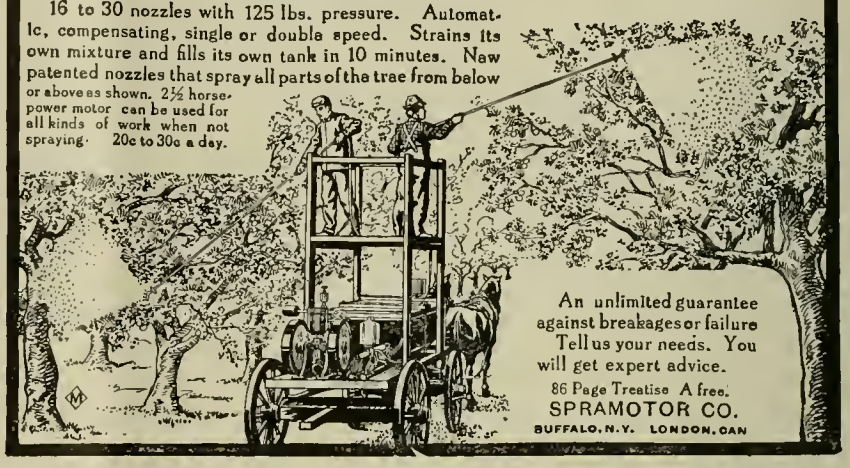
Don't kill a lady-bug, spider, quail or bird of any kind. These are all your best friends, not your enemies. If the birds do eat a few berries they are only collecting their own wages thereby.

Don't plow an old, runout bed of plants under and reset it before some leguminous grain or vegetable crop has

Power Spramotor

SPRAYS 250 TREES PER HOUR.

16 to 30 nozzles with 125 lbs. pressure. Automatic, compensating, single or double speed. Strains its own mixture and fills its own tank in 10 minutes. New patented nozzles that spray all parts of the tree from below or above as shown. 2½ horse-power motor can be used for all kinds of work when not spraying. 20c to 30c a day.



An unlimited guarantee against breakages or failure. Tell us your needs. You will get expert advice.

86 Page Treatise A free.

SPRAMOTOR CO.

BUFFALO, N.Y. LONDON, CAN

THE AUTOMATIC ROW SPRAYER

Is the Ideal Outfit for Strawberries, Potatoes, Beets, Etc. Three nozzles to the row. High pressure forces mixture to every part of leaf and branch. No cost for power.

The Government Buys Wallace Sprayers

Two orders just received for these Automatic Row Sprayers from the United States Government for beet spraying at Experiment Stations. After full investigation the Government selected Wallace Sprayers as better than all others. In adaptability, economy, thorough work, and easy handling they have no equal

Other Automatic and Gasoline Power Sprayers for orchard and field work. **"The Wallace Spray Way"** gives all particulars. FREE. Write for it.

WALLACE MACHINERY COMPANY, Dp't 50, CHAMPAIGN, ILLINOIS

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

Chas. S. Chase, Agent. 622 Chemical Bldg., St. Louis, Mo.

M. A. Hays, Agent, 225 Dearborn St. Chicago, Ill.

been grown upon it, unless the old plants were in perfectly healthy condition. Even then see that the bed is burned over before being turned under.

Now don't Don't, but do Do, and everything will come out all right!

Managing the Berry Pickers

ONE of our commercial strawberry growers writes to ask for some suggestions relative to the management of the berry pickers. This is one of the very important things in the successful management of the berry farm. Your pickers may "make or break you," and in no other time of your work is a thorough system more essential.

Women who are careful make the best of pickers. The first thing to do is to have a complete understanding as to what you expect of your pickers and what they rightfully may expect of you, it must be understood from the first that picking berries is work that requires judgment as well as skill, and that strict attention to business is to be insisted upon at all times. The name of each picker should be enrolled and each be given a number so that the errors or poor work of an individual may be promptly discovered.

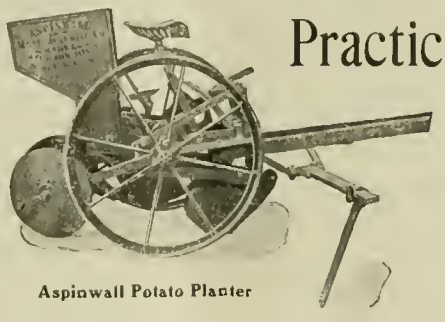
One point of prime importance is the selection of a foreman, and no foreman should be asked to superintend the work of more than twenty-five pickers, and he should have authority to hire and discharge if his position is to command the respect necessary to maintain discipline. Each picker should have a ticket bearing his name, and the foreman should carry a punch and keep accurate tally of the berries picked each day by every picker under him. Before accepting them, the foreman should examine the berries turned over to him by the picker; then, if they pass inspection, the ticket should be punched and the box marked with the picker's number and sent to the packing house. In order that the foreman may be free to oversee, one man should be employed to every twenty-five pickers to carry the berries to the packing house.

This system of careful inspection in the field saves an incalculable amount of time at the packing house, and it is one of the strong points about a good foreman that he knows just when berries properly are graded and packed. It also serves to fix the blame for carelessness or slovenliness right at the time, and a courteous, gentlemanly foreman will be able to show the careless picker what must be done in order to bring the work up to grade; or, if the picker persist in doing indifferent work, he may be made to suffer the consequences. And no man should be employed as foreman who is not at once a gentleman and a rigid disciplinarian.

Consideration of the rights of the pickers must be shown at all times; the matter of hours for beginning work and for quitting work must be scrupulously observed by both sides, and should be announced in some way—by bell or horn—so that they shall be uniform the field over. No employer ever lost anything by being thoughtful of the welfare of his "hired help." It has been the making of many a man's fortune that he did so, say nothing of the personal satisfaction that kindness and generosity always yields to those who practice them.

BEFORE the recent meeting of the Minnesota State Horticultural Society Walter Yahnke offered the following advice on the planting and spring care of strawberries: "Great care should be exercised in setting out strawberry beds. If plants are set too deep, crowns will rot or make feeble growth, and if too high the upper roots will be exposed and die. Secure plants from a bed that is in a healthy, thrifty condition, and cut off all old runners and unnecessary leaves. The fine roots must not be exposed to the wind—the best protection is to dip the roots in mud. Put the plants in baskets or boxes to take them to the field. A line is best to set plants by, as it leaves them level with the ground; plants set after a corn-marker are likely to be washed under during a heavy rain. Distance apart depends upon the kind and fertility of soil. Pick off all blossoms the first year, that the strength of the plant may go to development. Cultivate as soon as planting is done with fine-tooth cultivator, working twice a week during May and June, which kills the weeds and makes plants grow rapidly; pulverizing the soil helps to retain moisture. Hoeing is necessary around the plants to keep down weeds."

JOIN OUR COLONY OF NORTHERN Folks on a New Plan. Work for all. Graded Schools. 2 Railroads. Building lots free. Lands adapted to fruit, truck, and general farming. Specially good soil and ready markets for Strawberries. Large or small farms. Address, 1906 COLONY CO., Box 5, Folkston, Ga.



Aspinwall Potato Planter

Practical Potato Growers

Increase Their Profits

BY USING

Aspinwall Potato Machinery

WE have been making potato machinery for over twenty-five years, and thousands of satisfied customers in all parts of the world are using our machines to their profit and advantage. If you are engaged in raising potatoes for market it will pay you to own an outfit of our time and labor-saving tools.

CUTTERS
PLANTERS
SPRAYERS
DIGGERS
SORTERS

Aspinwall Four-Row Sprayer

The Machine Par-Excellent for Spraying
POTATOES, STRAWBERRIES, CABBAGE, MELONS, TOMATOES, AND SIMILAR CROPS

Our Free Catalogue is full of information for potato growers. Write for it.

Aspinwall Mfg. Co., 121 Sabin St., Jackson, Mich., U. S. A.

ACME Pulverizing Harrow

Clod Crusher and Leveler.

SENT ON TRIAL.

To be returned at my expense if not satisfactory.

SIZES 3 to 17 feet

Agents Wanted.

The best pulverizer—cheapest Riding Harrow on earth. The Acme crushes, cuts, pulverizes, turns and levels all soils for all purposes. Made entirely of cast steel and wrought iron—indestructible. Catalog and booklet. "An Ideal Harrow" by Henry Stewart sent free.

I deliver f. o. b. at New York Chicago, Columbus, Louisville, Kansas City, Minneapolis, San Francisco, Portland, etc.

DUANE H. NASH, Sole Manufacturer, Millington, New Jersey.

BRANCH HOUSES: 110 W. Washington St., CHICAGO. 240-244 7th Ave. S., MINNEAPOLIS. 1318 W. 8th St., KANSAS CITY, MO. 218 10th St., LOUISVILLE, KY. Cor. Water and W. Cay Sts., COLUMBUS, OHIO.

PLEASE MENTION THIS PAPER.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan.

ROBERT S. FOUNTAIN,
Advertising Manager,
47 Plymouth Place, Chicago, Ill.

SUBSCRIPTION PRICE:

United States and Canada - -	$1.00
Foreign - - - - - -	1.25

Application made for entry at the post office at Three Rivers, Mich., as second-class matter.

APRIL, 1906

APRIL brings many changes, and The Strawberry brings to its readers this month a change of face, at at least as to color-effect. March winds bring a russet hue to the face of man, and our cover presents this month the ruddy glow of springtime vigor, bronzed but beautiful. The artist has made good use of a photographic reproduction of a scene familiar to many, the fine strawberry bed of Charles Cox, teller in the First National bank of Three Rivers, Mich. The golden orange, the soft grays and deeper-toned effects of the picture are unusually fine, and we are sure our readers will enjoy its artistic quality and dignity. By holding the cover in certain lights the reader will discover some very unusual effects in changing colors, some of them exceedingly rich and beautiful.

STRAWBERRY folk are offered a free gift by the Gardner Nursery Company of Osage, Ia. This company offers to send to each of our readers who will ask for them twelve of their beautiful evergreen trees free. If set eight feet apart in a row, these twelve trees would in a few years time make a perfect windbreak 100 feet long. If not wanted for a windbreak they are of suitable varieties for setting on the lawn, in the cemetery or along the street. This company grows all kinds of hardy nursery stock, and have made a specialty of growing hardy evergreens for nearly forty years, and to prove their hardiness and quality they offer to send twelve fine pines and spruces two years old, entirely free to our readers who apply for them at once. Mailing expense is five cents which you may send or not, as you please. A postal addressed to Box 802, Osage, Ia., will bring them. This company's catalogue contains forty-two colored plates and a mine of valuable information for fruit growers. Sent entirely free to all property owners.

WE are in receipt of a letter from Carl Sonderegger of Beatrice, Neb., in which he says: "The results from our ad in The Strawberry were satisfactory, and we shall give you another ad next fall." Mr. Sonderegger is the kind of advertiser it is a pleasure to have such a word from. His name is synonymous with all that is honorable and high-class in nursery stock and dealing, and he deserves all that he is getting in the way of substantial appreciation. By the way, for the convenience of his patrons, many of whom are compatriots of his and still use the language of the Fatherland, Mr. Sonderegger issues two editions of his catalog—one in English and the other in German. The catalog lists a great many good things for the agriculturist and includes not only fruit trees and small fruits but forest tree seedlings and hundreds of choice varieties of tested seeds. Be sure and send for one of these catalogs before ordering your supply of seeds for this season's planting. Address The German Nurseries, Carl Sonderegger, Proprietor, Beatrice, Nebraska, mentioning The Strawberry.

BY their fruits ye shall know them," appears to be the test that Stark Bros., the largest nurserymen in the world, are anxious shall be applied to their fruits. Not only are these gentlemen nurserymen, but extensive orchard owners as well, and they try for themselves the stock they recommend and sell to others. And the other day the office force of The Strawberry was made glad by the receipt of a box sent them by this courteous company containing three specimens of as many varieties of apples that it would be hard to beat in any country. They filled the office with their fragrance as long as they were permitted to do so; but with apples at 65 cents a peck that you wouldn't call apples at all in an ordinary season, they were not long in going the way of all good fruit. One was a Black Ben, that Stark Bros.' vigorous battle over and complete victory has made famous among apple folk. We didn't think of weighing it until it was too late; but the member of the staff who ate that particular apple says he weighed at least three pounds more after doing so than before, and felt a good deal more than three pounds happier. Another was a specimen of Stark's Delicious, and the third was a Senator. We could wish our friends no better treat (strawberries excepted) than to have all of these splendid apples they could eat; and if they will write the Starks at Louisiana, Mo., they may learn just how to get them in ample supply.

INCREASED acreage in small fruits should be the effort this season among all classes of growers. The insistent demands from Chicago, Boston, Phildelphia and St. Louis markets should be planned for and met by farmers and fruit growers, large and small. W. N. Scarff, of New Carlisle, Ohio, says that $300 profit per acre can be made from small fruits. Mr. Scarff's 1906 catalogue is just off the press. It has a handsome cover and the inside of the book is given up to detailed descriptions of small fruits, garden and field seeds, fruit and ornamental trees and other nursery stock.

IN agriculture as well as in all other businesses, conditions have changed so rapidly of late years that the methods used to successfully carry on the various kinds of work on the average farm have undergone a great change. Reliable farm help has become so scarce that the farmer must depend on some more efficient and economical method of production than that afforded by the majority of hired men. Power of some kind is absolutely necessary on every farm of any size that is worked to produce something more than "just a living." The most practical and economical power for use on the farm or in the shop is furnished by the gasoline engine. A good gasoline engine always is ready to operate just when you need it. You do not have to wait for steam or go to the expense of hiring an engineer. The farmer has hesitated, however, to invest in such a motive power because of the cost and because so many of these engines are so complicated that they require an expert to set them up and start. But the Lion Engine is an exception. This engine is very simple in construction and easily set up and operated; in fact, the manufacturers, the Lyons Engine Company, Lyons, Michigan, are selling this engine direct from the factory to user at a price much lower than that asked by other makers who are obliged to sell through dealers. The Lyons people send explicit instructions and directions with each engine, so that it is an easy matter for anyone to start and operate a Lion gas or gasoline engine. They also have an easy-payment plan which appeals to many who desire to have the engine pay for itself while in use. Just write the Lyons Engine Co., at Lyons, Michigan, for full information concerning the Lion Gas or Gasoline engine. And don't forget to mention The Strawberry.

WHEN D. Y. Hallock & Sons bring out anything new in the way of a potato-handling implement nobody doubts for a moment that it is just as represented and will do the work. That is the priceless value of having a reputation. Perhaps no other implement invented by the genius that makes that company notable has been of larger importanc to the potato growers of the country than thee O. K. potato elevator digger. If you will observe the cut of this digger as it appears in the advertisement of the company in this issue, you will see that the principle of its construction is correct; that by its very form and operation it digs and handles the potato in such a way as to deliver the tubers without injury, while the rapidity with which it may be done is apparent at a glance. Practical experience fully justifies the company's hopes for the machine. Write for full particulars to D. Y. Hallock & Sons, Box 842, York, Pa.

THE family garden is something that every American citizen should have, and one of the greatest aids to success and pleasure in this line is the handy seeding and cultivating implements made by the Ames Plow company, Boston, Mass. No back-breaking work in getting the seeds into the ground, if you have one of these machines, and the work of cultivating the crops becomes a positive delight and such exercise as every healthy man or woman enjoys. A child can operate them. The Ames company manufactures the Matthews and New Universal seed drills, which are marvels of inventive genius and accuracy, planting all kinds of seeds and in just the quantity desired. An adjustable agitator in the seed-box regulates the flow of the seed, which is entirely under the control of the operator.

ATTENTION is called to the new and enlarged advertisement of the Hart Pioneer Nurseries in this issue of The Strawberry. This is an old-established firm, having organized their business in a small way in 1865. At the present time their nurseries comprise more than 600 acres and is one of the largest in the West. They make a specialty of the mail-order business and sell their stock direct to the planter at wholesale prices, which saves the consumer all agent's commission. They advertise their stock to be strictly first-class, pure bred in every respect and guaranteed true to name. Drop a card to them asking for their wholesale catalogue, and just say you saw it in The Strawberry.

EVERYBODY who ever has used the Planet Jr. tools knows what they stand for in convenience and economy, and those who use implements drawn by horses will be particularly pleased to know that there has been a new addition to the Planet Jr. family for 1906. It is No. 74, and is a two-horse pivot-wheel cultivator, plow, furrower and ridger. This covers the one spot in garden work not previously provided for in the long line of Planet Jr. tools, and we are assured that the new machine possesses more really good points than anything of like kind ever invented. If you garden and are not already provided, you will find the Planet Jrs. to be your kind of tools. It's an old saying that there's a Planet Jr. for every need. You will find just what you want in the 1906 Allen catalogue. Send for it. It will be mailed free. Write them at Box 1106D, Philadelphia.

We Do Not Want Your Money

Unless we can give you your money's worth, and *we cannot do this* unless you give us a chance to prove our claim, and

HERE IS WHAT WE CLAIM:

1st.—That The Strawberry gives more practical information on everything pertaining to strawberry production and marketing than can be obtained anywhere else in the country.

2nd. That The Strawberry makes every detail of strawberry growing so plain that none who reads it can fail to understand it.

3rd.—That every issue is brim full of good things—of actual experiences and clean-cut facts, and is so interesting that you never get tired of reading it.

4th. That the Correspondence School Department each month is worth more than the cost for a full year, because here is where we answer your questions and help solve your problems.

5th. That the paper is of extra good quality, and the print is so clear that it will not tire your eyes.

6th. That we will never allow any but good reliable firms to use its columns for advertising purposes. In other words, we refuse to introduce any firm to The Strawberry readers except those whom we can safely recommend.

Now Here Is Our Proposition:

We want every man and woman who grows strawberries, either for market or family use, to become a regular reader of The Strawberry. We want to accomplish this on a purely business basis, and if you will send us $1.00, we will enroll you for a full year and The Strawberry will be mailed to you every month, and if you are not perfectly satisfied that you are getting your money's worth, just say so, and your dollar will go back without a word. And you are to be the judge. You cannot lose on this proposition; neither can we, because you will not want your money back.

All you need to do is to send us your name and $1; we will guarantee to do the rest.

THE STRAWBERRY

118 Portage Ave. THREE RIVERS, MICH.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

General Offices, Nurseries, Packing Houses and Shipping Station

LOUISIANA, MO.

BRANCHES { Starkdale, Mo. Rockport, Ill. Portland, N. Y. Dansville, N. Y. Fayetteville, Ark. Atlantic, Iowa

Oldest Nurseries in the West
Established 1825

Largest Nurseries in the World
4675 Acres

WE PAY FREIGHT

on $5 orders (one-fourth cash to be sent with order) at prices quoted in our Wholesale Price List, to any R. R. Station in

ARKANSAS	KANSAS	ILLINOIS	MISSOURI
INDIANA	NEBRASKA	IOWA	OHIO

On Orders Amounting to $7.50 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ALABAMA	DELAWARE	DIS. COLUMBIA
CONNECTICUT	INDIAN TER.	KENTUCKY
GEORGIA	MARYLAND	MICHIGAN
LOUISIANA	MISSISSIPPI	NEW JERSEY
MINNESOTA	N. CAROLINA	OKLAHOMA
NEW YORK	S. CAROLINA	RHODE ISLAND
PENNSYLVANIA	TENNESSEE	WISCONSIN
VIRGINIA	TEXAS	W. VIRGINIA

On Orders Amounting to $10 or more, if one-fourth or more cash is sent with the order, we will prepay freight to any R. R. Station in

ARIZONA	CALIFORNIA
COLORADO	FLORIDA
IDAHO	MAINE
MONTANA	MASSACHU'TS
NEVADA	N. HAMPSHIRE
OREGON	NEW MEXICO
UTAH	NORTH DAKOTA
VERMONT	SOUTH DAKOTA
WYOMING	WASHINGTON

We make no charge for Boxing and Packing. We Do NOT pay freight on orders amounting to less than specified, nor unless one-fourth cash is received with order, nor on shipments by express.

GRAPE VINES—In order to carry out our policy of furnishing only the BEST, we maintain a nursery at Portland, N. Y., in the heart of the famous Fredonia—Chautauqua Grape Belt, which produces the finest vines grown in the U. S. We are headquarters for all the leading Commercial sorts.

WARNING—We are sole owners of the names Black Ben, Champion, Delicious, King David and other leading commercial apples, Gold plum, Stark-Star grape, etc., all of which are our Trade-Marks, duly registered in the U. S. Patent Office under the new law approved Feb. 20, 1905. Planters are warned against infringers offering trees under these names or trees claimed to be "just the same." We offer the GENUINE at prices as low as GOOD trees can be produced. Wise buyers will take no chances.

STARK TREES SUCCEED

WHERE OTHERS FAIL—

BECAUSE, three generations of Stark Nurserymen have made the production of the BEST trees their life study, their life work;

BECAUSE, Stark Trees are produced under an exact science from the time the seed are selected until the tree is delivered carefully packed for transportation;

BECAUSE, in selecting buds and scions only healthy, vigorous, highly prolific trees of the best strains are used as parentage;

BECAUSE, a tree grown with all conditions favorable has high vitality and will withstand climatic rigors and unfavorable soil even better than the stunted weakling propagated in just such uncongenial surroundings;

BECAUSE, having eight nurseries in five states, each sort is grown under the most favorable conditions of soil and climate, resulting in hardy, healthy, thrifty trees that LIVE and BEAR;

BECAUSE, we are constantly on the watch, not only for valuable new varieties of fruits, but for the best strains as they are developed. As soon as an improved strain is found it is propagated and the inferior discarded;

BECAUSE, only THE BEST roots, scions, soil, location, labor, cultivation, pruning, digging, storing and packing enter into the production and handling of Stark Trees. We ask for your orders

BECAUSE, Stark Trees have given satisfaction in every state and territory for 80 years, with the result that Stark Nurseries have constantly grown (the only true test of merit) until they are now the LARGEST IN THE WORLD. We are not "here to-day and gone to-morrow."

APPLE SEEDLINGS—We offer for the coming season's trade several million that, owing to favorable season, are EXTRA FINE. They are Iowa grown from Vermont seed and our own experience has demonstrated that they are superior to all others we have used. Also a fine lot of Catalpa, Black Locust, Mahaleb Cherry, French and Japan Pear Seedlings, Plum Stocks, etc., Vermont Apple Seed.

STARK FRUIT BOOK "WORLD'S FAIR FRUITS" shows in natural colors and accurately describes 216 varieties of fruit. Send 50 cts. and we will send the book post-paid and a REBATE TICKET permitting its return within 60 days when the 50 cts. will be refunded. Or the Rebate Ticket is good for $1 part payment on a $10 order for nursery stock.

Send for Wholesale Price List, Order Sheets, Descriptive Circulars, Half-tone Views, etc.—FREE. WE PAY CASH Weekly and want MORE Home and Traveling Salesmen. Address, STARK BRO'S NURSERIES & ORCHARDS CO., Desk 11, Louisiana, MO.

May 1906

THE STRAWBERRY

"The Lord might have made a better thing than the Strawberry---but He didn't."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

We are now Busily Engaged in Digging and Shipping

Kellogg's Famous Strain of Thoroughbred Pedigree

STRAWBERRY PLANTS

This rush will continue until June 5th, filling orders that are pouring in from all parts of the country. Send yours in at once, and the plants will be freshly dug and hustled to you on the first train

SCENE IN OUR PACKING HOUSE
Showing One Hundred Trained Counters, Packers and Shippers at Work

Two of the Great Express Companies establish Branch Offices here each season.

One hundred and fifty men are out in the field Cleaning and Digging the Plants, and thirty experienced foremen to see that every detail of the work is dispatched with accuracy and without a moment's delay.

Our customers have bought more heavily this season than ever before, but we have so largely increased our acreage of the old favorites that we are still able to supply in large or small quantities as you desire.

R. M. KELLOGG CO.

118 Portage Avenue THREE RIVERS, MICHIGAN

ENTERED AS SECOND-CLASS MATTER MARCH 31, 1906, AT THE POST OFFICE AT THREE RIVERS, MICHIGAN, UNDER THE ACT OF CONGRESS OF MARCH 3, 1879

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 5 Three Rivers, Mich., May, 1906 $1.00 a Year

SOME suggestive parallels are to be found in a study of animal breeding and plant breeding, and every year these correspondences appear more clear to breeders as experience brings them into clearer view of the situation as it exists in these important fields of endeavor. In an address before the students of the Iowa Agricultural College at Ames, taking for his theme "The Plow and the Book," John Clay, the well-known Scotch-American stockman, urged the need of intelligent reading on the part of the men who hold the plow and raise live stock if agriculture is to attain its true place in the world. Referring to the history of the Short-horn breed of cattle, Mr. Clay said: "It is a pathetic story in a way. There is a rise, decline and fall of many families, a weakening of constitution, the disappearance of some grand work. And from its pages the young breeder, nay, the average farmer and ranchman, may draw many a good lesson."

So in the plant world we have the rise, decline and fall of noble orders of plants written large on history's page. If we consider so unromantic a thing as the potato, we shall find some striking instances. For one, the Early Rose. What person of forty years but recalls its fine form, smooth skin, mealy texture and delicate flavor, to say nothing of its enduring qualities? Practically it has disappeared from the earth. Why? Simply because there was failure to select and restrict, failure to note the good, the better, the best, and propagate only from the latter. Does anybody doubt that if this had been done the Early Rose would today be a better potato than it was thirty years ago?

But now the world is growing more intelligent, and we see the beginnings of better things. Over in Illinois there are now great farms devoted for the most part to the breeding of seed corn. One of these consists of more than 25,000 acres of the best corn land in the world. Upon these farms is grown pedigreed seed-corn, and as a result of the performance of this seed, as compared with that planted by the average farmer from his own crop, considered from both its quality and yield, many farmers in the Illinois "corn belt" now buy each year every bushel planted on their farms. And they find it pays them many times over to do so. Yet consider what Riley and Reid and Leaming had to go through before they could prevail upon the world to accept the idea that there was anything in "breeding corn." But the world of agriculture moves, though slowly.

Have we tangible proof that this care in the selection and breeding of seed-corn gives actual returns in dollars and cents? Let us take the result or several years of seed-corn breeding in Illinois, as described by Prof. Cyril G. Hopkins, chief in agronomy and chemistry at the University of Illinois, and perhaps the most profound student in this particular line of work in this country, if not in the world. In a recent article Professor Hopkins tells of the work done by the Illinois corn breeders to bring up their seed to higher yielding power, and finds in the government crop statistics a singular and impressive confirmation of his contention that extraordinary results will follow continued breeding along scientific lines. The government figures show that during the four-year period, 1897-1900, Illinois raised an average of 33.9 bushels of corn to the acre a year, while Iowa raised an average of 33.3—a difference of six-tenths bushels only in favor of Illinois. In the four-year period, 1902-1905, Illinois went up to 36.8 bushels, while Iowa went down to 31.9 bushels per acre a year, spreading the difference between the two states to 4.9 bushels.

In commenting upon these figures Professor Hopkins calls attention so the fact that "In the actual and general putting into practice of modern methods of corn improvement, the state of Illinois is at least three or four years in advance of Iowa, the second greatest corn state. Indeed, the general popularizing of corn improvement has been so recent in Iowa that its influence must be measured by future effects rather than by corn yields already produced." Dr. Hopkins also observes that "Illinois farmers as a very general rule are planting improved seed-corn, much of which is actually tested for germinating power, sometimes ear by ear."

Of the results secured by breeding for special purpose, Dr. Hopkins says: "The increase in the feeding value of corn is by far the most important improvement made by breeders thus far. When we know that the protein in some of the leading varieties of corn has been increased from 10 to 13.25 per cent, we begin to realize what improved seed means to the farmer."

"I do not wish to predict what will be done," concludes Dr. Hopkins, "but I do wish to assert with confidence that by continued use of well-bred, carefully selected and tested seed-corn, by the more general adoption of good crop rotations and the addition of liberal amounts of lime or phosphorus or potassium where either is so deficient as to limit the yield of corn or the success of clover, and by continuing the present excellent Illinois practice of thorough soil preparation and good cultivation,

the average yield of corn for the state of Illinois can easily and very profitably be increased to at least ten bushels per acre above the last four-year average, and this average, 36.8 bushels, is the highest average ever recorded for four consecutive Illinois corn crops."

Just what your breeder of dairy cows is doing in the improvement, by breeding and selection, of the milk flow and butter-fat content; just what your breeder is doing to increase the number of high-priced steaks in the beef steer; just what the nurseryman is doing whose trees you know always are the best; just what the the seed-corn specialist is doing to furnish a quality of pure-bred seed that, coming from a thoroughly tested ancestry, is sure to yield splendid results at harvest time—just this sort of work is what tells the story of success or failure in strawberry production. Plants that have been bred up to the highest degree of productiveness, that possess known powers—these certainly are the ones that afford the only safe basis upon which to build the structure of an enterprise from which one may hope to realize fortune and independence.

Cultivating the Fruiting Bed

NO matter how well a strawberry bed has been cared for during the growing season, weeds and grass are almost sure to bob up through the mulching, especially if the mulching be lightly spread. The mulching itself is likely to be responsible for the presence of weed seeds, as the materials composing it are almost sure to be infested with such seed.

It is at once apparent that weeds must not be permitted to dispute possession of the ground when the vines are in full fruit, because the making of good fruit and lots of it requires all the moisture and plant food the soil can supply. And it is a big job to keep the fruiting bed free from these obnoxious growths by hand.

The easiest and best way to get rid of the weeds is to rake the mulching close up to the row of plants, and then cultivate the bare space between the rows. By doing this the mulching will be so thick along the rows that weeds and grass can not come up through it, and the stirring of the soil between the rows will prevent seed from germinating there.

If the grower is careful to see that he does not cultivate too deeply; does not start the work until danger from frost is past; does not cultivate when plants are in bloom save when the soil is so damp that the dust will not fly—if these points are observed this work will serve two purposes: it will destroy foul growths and conserve moisture in the soil, and these will insure an increase in crop. If any weeds should grow in the row they would be so few as to make it a simple matter to pull them out by hand; and this is easily done after a rain and the ground is moist and yielding.

Success to the Man Who Does

By Joseph Bolt

AS you invite accounts of practical experiences in strawberry growing, I will try to tell you of mine, not in any spirit of boasting, but in the hope that it may encourage someone who is in the same position that once I was to take courage and try it, too.

For thirty years I worked at the trade of blacksmith, and always considered myself a little above the average, especially in the matter of horse-shoeing. So I always could earn good wages and part of the time was in business for myself. But

JOSEPH BOLT

do what I would, I could not make more than a living and keep my family decently. Expenses always equalled income. Finally, when I was nearly fifty years of age, my health gave way; my wife's health also was poor, and the doctor told me I had to give up my trade and keep away from the fire, or I could not live a year longer; that I must get into a warm climate and work in the open air.

Well, the warm climate was a long way from Pennsylvania, where I then lived, but we made up our minds to make the change; sold out nearly everything but those effects we could pack in boxes and a set of my tools which I knew would come in handy here, and came down to Florida in the spring of 1900, with a capital of less than $100, both wife and myself in poor health and having a five-year-old child. I bought twenty-three acres of wild land for $30. It was thought to be poor land, but it was well located on a public road, with railroad station and lake only a half-mile away. Here I erected a rude house—as all we need in this climate is enough to keep the rain and wind out—and started to clear and fence.

We soon found that health was returning, and before the summer was over both of us were strong and healthy. The next spring I set out 200 peach trees and had enough land under cultivation to raise our vegetables. Then I received a strawberry catalogue from the North, and the truths set forth in that book so appealed to my reason that I concluded to try strawberry growing. That summer I got a piece of ground in readiness, and set out 2,000 finely bred plants the following spring. Everybody said that my land was not good for the purpose of strawberry growing, and that I was foolish to pay so high a price for plants, with high express charges added, when I could get plants here for one-fourth the cost. But I was in for it, and was bound to see it through, although the summer was very unfavorable—hot and dry—but the plants all lived, save about thirty, which were cut by worms.

Last spring I had my first harvest. Although I lost some berries through unfavorable weather, and some through a blunder I made, still we sold 1280 quarts, not counting what we ate, canned and gave to our friends. And we had preserved enough to last until now. This spring we picked our first berries February 6, and have picked twice a week ever since. Still the vines are full of green berries and are blooming, with a promise of doing better than last year.

Now I have a piece of ground ready to put into strawberries as soon as the plants come, which will double the output, and next spring I shall double again. I also have a nice peach orchard of 615 trees, most of them in bearing, and am now breaking up land to set to peach trees next spring. I also have a nice bed of asparagus, which will be ready to cut for market next spring. So you can see that with strawberries, asparagus and peaches I have almost a continuous harvest for seven months of the year. Of course we have to grow several varieties of berries and peaches to do it.

It is pleasant when you can take fruit to the station every week-day and stop at the postoffice and get a check for products marketed. And the beauty of it all is that I can blow my own whistle as to when to commence and when to quit work.

Brooklyn, Fla., March 12, 1906.

THE world has heard a great deal about Nicholas Longworth lately. This young Congressman, who was fortunate enough to become the son-in-law of Theodore Roosevelt, had a grandfather—Nicholas No. 1—to whom strawberry growers and the world in general owe a debt of gratitude. He was an interesting

character, a typical American pioneer, and among his numerous activities he was a grower of the strawberry. More than sixty years ago, we are advised, he discovered the fact of sex in strawberries. Before that discovery was made failure to produce crops of berries was the rule rather than the exception. Gran'pa Nicholas Longworth's discovery changed all that, and pointed the way to the extraordinary commercial success enjoyed by the grower of the present day.

Why Bunker Was Disappointed

"YES, that's a mighty purty picture," said Mr. Simpson, as he looked over his neighbor's shoulder at a copy of his monthly magazine that contained some excellent illustrations of strawberry beds in summer time. "An' it's as true to life as Bill Grubbin's snow statoo of that yaller dog o' his'n. There hain't nothin' purtier, to my way o' thinkin' than a fine field o' strawberries, an' I do like to see 'em when they're in the papers.

"But every time I see a picture like that it reminds me 'o one 'o Bunker's experiences. Didn't I ever tell you of the first lot o' plants Bunker got from a mail-order plant concern? Well 'twas several years back. Bunker got a catalogue just chock full o' fine pictures o' growing plants, and sent for a lot of 'em. They came along in May, all right, and I noticed they looked mighty fine and dandy as they laid in the box; but didn't say nuthin' to nobody about 'em 'cause Bunker didn't happen to be around at that minute.

"Well, the next time I see Bunker he says to me, 'Say,' he says, 'I'm awful disappointed; them plants I got the other day wa'nt no good at all.'"

"'No good!' I says; 'why man, I looked 'em over, and they was fine.'"

"'Now you're a jokin' me again,' says Bunker; 'for of all the dried up lookin' things I ever see them wuz the worst ever!'"

"Well, sir; for a minute I was stumped. Then I says to Bunker: "'What on airth do you expect plants that have been under mulch and snow all winter, and are all calloused,to look like in April? You"—

"'Come into the house,' says Bunker, 'an' I'll show ye.'"

"So in we went, and Bunker he gets down that catalogue. 'There,' he says, 'is what they advertise—why don't they send out plants that look nice and purty like them! Them dried up things won't grow!' An' he was madder'n a hornet.

"Well, sir, you might a knocked me over with a match. That blamed idiot had got that fine summertime picture in his mind, ano expected to see a box of great spreadin' plants, full of sap and green as a hothouse plant in December! And he was so hot about it that the first thing he done was to throw 'em out in a heap and spile the last one of 'em, and he made a roarin' kick against the innocent nurseryman. He was out his money and out one hull year's growth of his plants. When I sobered down enough to explain matters to him he was as meek as Moses, and called himself harder names than anybody else 'd dare to do.

"Yes, that's a mighty purty picture you've got there. There hain't nothin' purtier."

FROM BUD TO BERRY PYRAMID
Number From Top Downward

1. Showing the bud just as it starts to swell. Little danger from frost at this stage.
2. Bud just starting to burst open. A heavy frost would do some injury.
3. Bud nearly half open, anthers fully matured. Frost more effective at this time.
4. Bloom fully matured, anthers ripe and have burst and pollen has taken effect. Heavy frost more dangerous than at any other period.
5. Stigmas all impregnated, petals fallen and the body of berry formed, which causes the flower to droop. This protects it from inroads hy frost.

Why I Got No Strawberries

By A. F. Jones

I HAVE raised a few berries for family use and had a few to sell for the past three years. The first plants I got from a gardener, and they were out of a bed that had fruited for two years. He said they were all right; that he got his from an old bed five or six years before. So I set them out and let them run in wide-matted rows, without taking any runners off at all. They grew and had a heavy foliage, as I have ideal land for strawberries. The next spring they blossomed out wonderfully and looked beautiful and as though there was going to be a monstrous crop of berries. But when it came fruiting time about half of the blossoms dried up to a little black speck.

On a stem where there ought to have been twelve or fifteen berries there would be two, or possibly three, luscious ones, and then there would be three or four that would be partly developed, looking as if they had been stung, or the juice sucked out of one side of them. They were deformed.

I spoke about it to two or three different ones who grew berries and they said that it was caused from flies and bees sucking and stinging the blossoms. They did not know of any way to prevent it.

Last spring I set out some more of those and went to a man that grows them quite extensively and got some Glen Mary's, Ridgeways, and Climax out of a bed that had not fruited, although they were grown in the wide-matted row. I set them out three feet apart, and about two and one-half feet in the row. They have grown and come together in the row to within a foot of each other between the rows. I kept them well cultivated and weeded. The ground is of a rich, sandy loom, and gravelly. It was well manured the spring before, and before I set the plants out I put wood ashes on the bed. I have them well mulched and I was expecting large returns until I began to read your method of cutting runners and directions for the proper selection of plants.

Wells, Vt.

Mr. Jones' experience is the universal one where an attempt is made to get nature to do two things at once. The

fruiting bed and the propagating bed must be kept absolutely separate if you would succeed. Is it not enough to ask of plants that they shall grow a crop of big, red, luscious berries, without placing upon them the added burden of rearing progeny at the same time? Nature emphatically says it is, and nobody will succeed who goes counter to Nature's laws. —Editor Strawberry.

Cultivation vs. Fertilization

WHILE thorough cultivation will not produce a big crop of fancy berries without the use of manure or fertilizers, we would rather take our chances of getting a profitable crop of berries on medium-grade soil by intensive cultural methods without fertilizers than to depend upon liberal fertilizing without the use of the hoe and the cultivator. That is, we rather would have medium-grade soil and give the plants thorough cultivation than have highly fertilized soil and neglect cultivation. Of course, neither method is complete without the other; we compare them only to show how essential it is to give the plants careful and continuous care; and we are sure that the importance of this feature of strawberry production cannot be over-estimated.

It certainly does not pay to set plants on valuable land and then endeavor to cut the cost of production down by reducing the number of cultivations and hoeings. Just as soon as the plants are set, the cultivators should be started, and this should be repeated every week until early in the fall, unless the ground is wet. Always cultivate after each rain, just as soon as the soil will crumble. This will prevent crust from forming and thus save a large amount of moisture which otherwise would be wasted.

Remember that every time it rains, the water percolates into the soil and travels from one soil grain to another. During this process the moisture dissolves a certain percentage of mineral matter from the soil grains. Immediately after the rain the moisture, which is charged full of the richest mineral matter, starts for the surface, working up by capillary attraction, and if there is not a dust mulch prepared before the surface-crust forms, the moisture will work up until it comes in contact with the air. Here the plant food and moisture separate, and the moisture is taken up by the air and the plant food left on the top surface to be washed away by heavy, dashing rains. If the crust is broken up by cultivation the complete blanket of dust, or loose soil, will prevent this waste by holding the moisture below the mulch, or from two to three inches under the surface. This places the mineral matter in the warmest part of the soil, just where the feeding roots easily can absorb it, and but little moisture can escape through the plants; and this is just the channel we want it to pass through.

Another valuable feature of cultivation is that every time the cultivator tooth cuts through the soil it assists in furnishing air to the bacterial germs, which in turn work up the plant food into available form, and so it is easy to see that every time you work the soil you also are feeding the plants. This is why we say that careful cultivation with fertilizers is better than heavy manuring without the proper working and stirring of the soil, because neither manure or fertilizers are of value to plants until they are worked up by bacteria, dissolved by moisture and taken up by the soil grains. And this process cannot take place effectively without repeated stirring of the soil.

Advertising Your Strawberries

AT first thought, it would seem hardly necessary to advertise such delicious fruit as strawberries, but when you stop to consider for a moment, you are quite sure to admit that it does pay, because it gets the people to thinking about your berries, and the more you can get them thinking about your goods, the more you will want them. Of course, it is true that high-class berries always will be in demand, but it also is true that advertising will increase that demand, and thus will make it easier for you to get your price. One of the principal objects in advertising is to make your name a household word, and every time the housewife thinks of strawberries, your name will come to her mind, and when she steps to the 'phone to order her daily supply of berries, your name will be so fixed in her mind that she is certain to call for your strawberries. And if the grocer says he hasn't any of yours on hand, she will say: "Oh, pshaw! can't you send out to his farm and get me six or eight quarts? I am going to have company and I must have extra fine berries!" Now, Mr. Grower, don't you see that this lady is compelling her grocer to handle your berries?

One way is to put "squibs" or little ads in your local daily or weekly papers. These should be put in with the "locals", and should read something like the following: "If you have a longing for big, red, juicy strawberries that are free from all taint of grit and sand, call for Brown's Fancy Select Berries and insist upon getting them."

"There's no place like home when the table is loaded down with a big shortcake made from Brown's Select Berries."

"If you never have tasted a real, juicy, properly grown and fully ripened strawberry, call for Brown's Select Berries. He is the man that knows how to grow them."

Another good way to advertise is to have large display cards printed something like the express companies use, and hang them in front of the grocers' who handle your berries. Let them read something like this:

BROWN'S FANCY SELECT

STRAWBERRIES

FOR SALE HERE

Every grower has an over-supply of berries for one or two days right in the midst of the picking season. Then is the time he should get out little leaflets, making special inducements to get the women to put up their winter supply of berries. This will help you sell the surplus without glutting the market.

STARK FRUIT BOOK

44 pages 9 x 12 inches; 22 pages in natural colors
216 varieties of Fruit, with concise description of ripening of each; 64 half-tone views of Nurseries, Houses, etc.
Send 50 cts. for book (post-paid) and Rebate Ticket permitting return of book by mail within 60 days and we refund the 50¢. Or, mail us within 1 year, Rebate Ticket with $12 order for nursery stock and we will credit $1.00 in part payment on your order and you KEEP THE BOOK free. WE PAY THE FREIGHT.
We Pay Cash weekly and want more home and traveling salesmen. OUTFIT FREE.—Stark Bro's, LOUISIANA, Mo., Atlantic, Iowa, Fayetteville, Ark.

PIONEER GUARANTEED NURSERY STOCK AT WHOLESALE PRICES.

All stock guaranteed disease free and true to name.
Hart Pioneer Stock is pure bred and produces heavy crops.
Value received for every dollar sent us. No Agent's Commission.
WRITE FOR COMPLETE PRICE LIST. WE WILL SAVE YOU MONEY.
HART PIONEER NURSERIES, Established 1865. Fort Scott, Kan.

BUD-REMOVING SCENE ON A LARGE COMMERCIAL STRAWBERRY FARM

Removing bloom from newly set plants. Every bloom should be carefully picked off before the pollen takes effect. This is best done by pinching or cutting the fruit stem off before buds open, thus reserving all the strength for the mother plants.

Some Work for May in The Strawberry Field

THE miracle of spring has been wrought, and once more the warm and life-giving sun and gentle winds and soft showers have come to bless the earth and fructify it. Man and beast and plant, all feel the stimulus of a new joy, and hope springs fresh and buoyant, laying hold upon enterprise and labor with fresh grip and stronger purpose. Even the earth itself, once thought to be cold and inanimate, joins in the universal chorus of praise to spring, and hastens to lend her powerful aid to the perfection of mother Nature's plans.

The call of Out-of-Doors is insistent, and lovers of nature respond gladly to that call. None is more delighted to so respond than he who knows the pleasures of strawberry culture, or the one who, not yet knowing, but looking longingly for the time when he, too, may be at it, welcomes the approaching day. May has its days that are quite as rare in their soft loveliness as Lowell's "day in June," and the inspiration of such a day in the strawberry patch is one its true lover never forgets. But there is the practical side of strawberry culture without which we may never enjoy to the full its esthetic charm, and our mission here is to point out some of the things that must be done at this season if one's high hopes are to be realized.

ONE of the first things to have in mind is the necessity of removing all the bloom from your newly set plants just as fast as it appears. This is very important, and if neglected until pollen takes effect and are then removed, the plants are bound to be weakened, and it will require several weeks to get them under good growing condition. Therefore, we urge you to do this work right on time, and thus be sure of securing the best growth possible. "A stitch in time saves nine," is more than true in strawberry production—it will save anywhere from ten to a hundred.

The work of removing bloom is a very trifling matter. Simply pinch them off as you walk through the rows, enjoying the beauty of the foliage, with its rich and varied shades of green, and contemplate in anticipation the splendid crop of berries you are to have if you do your part.

AND don't neglect the young plants at the time you are picking this year's crop. So many growers, overwhelmed by the rush of business in marketing time, neglect the young plants that must be cared for if they are to give off big yields during the seasons to follow. We have seen whole fields of newly-set plants left to take care or themselves while the grower was marketing the present crop, and though the young plants grew under this neglect, weeds and grass, which never require encouragement from man, grew still faster, and by the time the crop was harvested the new bed presented a sad appearance and required double the work and expense to get it clean that it would to have kept it in perfect condition. In addition the plants themselves received a severe backset by being compelled to associate with inferior plants and to divide the plant food with their more voracious neighbors.

No matter how satisfactory the returns from the present crop, the grower is bound to be disappointed and humiliated by the conditions of the new bed, and his pleasure in his work, and the profits from the crop are lessened proportionately. It is no play to get down on one's knees and dig weeds after a hard day's work, where, had you employed one man to look after a new bed while you were marketing the crop, all this excessively hard and very costly work would have been avoided and the plants themselves greatly advanced in productive power. You never saw a calf that was neglected or ill-fed until it was two months old develop into a big, healthy animal. Infancy with plants, as well as with animals, is the time to lay broad and deep the foundations of a vigorous system, capable of standing up under the work required. Keep your plants on the jump from the time they go into the ground. Don't let them lag for a minute.

IT isn't a good sign when you see rusty tools lying about a berry grower's place. Rust doesn't gather on tools that are in use. And when they are being polished by contact with the earth you also are putting a fine polish on your plants, and the higher polish you get on your plants the brighter the fruit will shine in the market places. We are sure that Strawberry readers are going to see to it this year that everything, from setting plants to picking berries, is done in the best and most approved manner. This is what we hope we may help you all to do.

Now there's the hoe that needs exercise, and nothing will pay bigger returns on the labor invested. It is an easy tool to use if you know how, but it is amusing to see some folks use that simple implement. They tie themselves up in a knot, grab the handle up close to the blade so hard that it cramps the hands, and proceed to hack at everything in sight. The proper way to hoe is to stand almost erect and draw the hoe through the soil with perfect ease and deliberation. By doing this the soil falls directly back into place, leaving a perfect dust mulch all about the plant, and at the same time killing weed seeds during germination. The easiest time to kill a weed is just

before it peeps its head above the surface, and then is when you should get after the weeds most vigorously.

WHAT about weeds in wet weather? This is a question frequently asked us, and some of our folk say that during wet weather weeds and grass get the start of them, and want to know how to overcome this in view of the fact that it will not do to cultivate or hoe while the ground is wet. Here is our way of getting around the difficulty, and we like to recommend the things we find the most effective: Between showers we go over the fields and pull out the grass and weeds. Of course, it is a poor plan to tramp over the ground when it is wet, but it is better to do this than to let the weeds whip you out entirely. In 1905 there were two full weeks of excessively wet weather, and we were compelled to pull weeds or let them take the fields, and as we did not like the idea of surrendering, we pulled the weeds, and just as soon as the ground was in condition to do so we put the cultivators to work and everything went on the same as though the "wet spell" never had been.

REMEMBER that this is the month of the saw fly in many localities. This insect enemy of the strawberry generally is found on the under side of the leaf, and when you notice the foliage being eaten and small holes present in them, it is certain evidence that these pests are at work.

Speaking of the saw fly reminds us of the proposed remedy for the pest suggested by one of our neighbors. He said:

"I won't be troubled with the saw fly next year, because I'm going to freeze 'em out."

"How's that?"

"Why I am going to leave off the mulch this fall and let the blamed saw flies freeze to death!"

We advised the enthusiastic discoverer of this original method that in all likelihood the plants would be the first to get frozen out, and that he would be welcomed in the spring by the usual number of saw flies, if he depended upon Jack Frost to kill them off.

One good meal of Paris green usually will rid the plants of this foe, and we repeat the formula for making this mixture for the benefit of those who may not be familiar with it:

Take one pound of unslaked lime, put over this seven ounces of Paris green and pour over this two gallons of hot water. add to this water enough to make fifty gallons.

THEN there's that question of marketing. We cannot too strongly emphasize the importance of good packing of strawberries as the first step to success in the market. Just notice that Italian over at the corner fruit stand—see how he polishes up the red-cheeked apples until they reflect the faces of hi s customers. Even if the handkerchief he uses isn't of immaculate cleanness, the rubbing greatly improves the appearance of his fruit, and it will sell time and again before his negligent neighbor will have a call for his dull-looking and unappetizing wares.

Some growers say that it is too much trouble. Nothing should be considered "trouble" so long as the public is glad to pay for it. But you are doing something more than getting pay for that particular crate of berries. You are building up a reputation for your fruit that insures its immediate sale season after season. And it isn't trouble at all if you go about it in the right way. For instance, have your pickers separate the second grades from the fancys as they pick them in the field. This is done quickly and without confusion. And when the berries reach the packing house all that is necessary is to place the top layers in a way to make them the most attractive. If the berries are cone-shaped or round, place the top layer with stem-ends down, but if the berries are long, then lay them in rows on the side, showing the glossy side of the berry and a part of the green calyx. In other words, make them look so good that they will command the price you ask for them.

A pair of polished shoes may last no longer than a pair left dull and unfinished, but will bring a better price, because it appeals to the eye and that innate desire to have nice looking things. Just put yourself in the purchaser's place and you will see that this is so. And if you are catering to the consuming trade, keep yourself, your horse and wagon clean and tidy and up-to-date. Little things count.

Concerning Wood Ashes

MANY inquiries reach us concerning wood ashes, and because they are of easy access to many, and are really a valuable fertilizer when properly handled, some folk are apt to think they are equally good under all conditions. But this is not so. Ashes should not be used on heavy black soil, because, as a rule, these soils under natural conditions are inclined to give off their nitrogen too readily. Wood ashes are about 30 per cent. lime, and this element is sure to make nitrogen available in excess of phosphorus and potassium, and this will encourage an over-supply of vegetative growth at the expense of fruit.

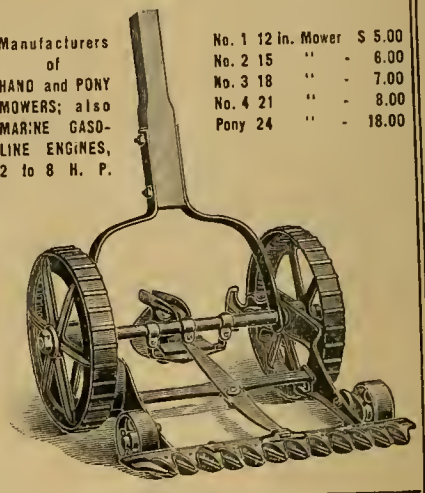
Wood ashes may be used on sandy soils or sandy loam at the rate of forty to fifty bushels to the acre. They should be scattered evenly over the soil after it is broken up and then thoroughly incorporated with the soil before setting the plants. Clay soil will stand from twenty-five to thirty bushels an acre applied in the same way. Clay or buckshot soil respond readily to 400 pounds of bone meal and 200 pounds of potash to the acre, well worked in before plants are set, provided a liberal coat of stable manure previously has been turned under.

THE Department of Agriculture is making experiments for the purpose of determining the extreme vitality of seeds. More than a hundred species of plants have been packed in a soil consisting of dry clay enclosed in pots, and buried at varying depths underground—eight sets at a depth of six inches, twelve at a depth of twenty, and a third set of twelve at a depth of three and a half feet. At

CLIPPER LAWN MOWER CO.
DIXON, ILLINOIS

Manufacturers of HAND and PONY MOWERS; also MARINE GASOLINE ENGINES, 2 to 8 H. P.

No. 1 12 in. Mower $ 5.00
No. 2 15 " - 6.00
No. 3 18 " - 7.00
No. 4 21 " - 8.00
Pony 24 " - 18.00



THE MOWER That Will Kill all the Weeds in your lawns. If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders of roots, the grass will become thick, and the weeds will disappear. THE CLIPPER WILL DO IT

Please Send Draft or Money Order or Registered Letter

Paint Without Oil

Remarkable Discovery that Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package and a Big Book Telling All About Paints and Paint-Making are Mailed Free to Everybody Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes to you a dry powder and all that is required is cold water to make a paint weatherproof, fireproof and as durable as oil paint. It adheres to any surface, wood, stone or brick, it spreads and looks like oil paint and yet only costs one-fourth as much. For many purposes it is much better than oil paint and is indispensable to every property owner.

Write to Mr. A. L. Rice, 550 North St., Adams, N. Y., and he will send you a free trial of his new discovery, together with color cards and his valuable book on Painting, all free. This book lets you into all the secrets of paint-making, exposes fake paints, tells you what kind of paint to use for different purposes and shows you how you can save and make a good many dollars. Write today and the book and free trial of Paint will be sent you by return mail.

the end of one, two, three, five, seven, ten, fifteen, twenty, twenty-five, thirty, forty, and fifty years a set from each depth will be examined and tested. The results of the experiment are expected to be of extraordinary value to agriculturists, both commercially and scientifically. Incidentally, it may be noted that authentic cases are on record which prove that certain seeds have the power of sprouting after having been buried for long periods of time, reliable tests having shown that twelve out of twenty-one species have the power of germinating after twenty years.

How to Handle a Kicker

By F. E. Beatty

THERE is a certain class of people who want the very choicest of everything and they are willing to pay a good big price in order to get the best. Then there is another class of people who are finicky. They want everybody that tries to sell them anything to toady to them. This kind of people want to pick and paw over every article they buy, but do not want to pay any more than common stuff is selling for. They tell you your berries are sour, the boxes are not full quarts and your berries are not nearly so good as those of other growers. No matter how honestly your berries are packed, these people will find nothing but little, green, inferior, worthless berries in the bottom of the boxes and they insist upon a rebate or they will never buy another cent's worth of berries from you as long as they live.

I well remember a customer of this type. She was forever finding fault with the quality and dishonest packing. One day this woman saw me in a grocery store where my berries were sold and she said: "How does it come you charge 15 cents a quart for your berries when all the other growers and their dealers are selling for 10 cents?"

"My berries are worth more."

"But their quart boxes are just as big as yours."

"Yes, that may be true; so is a yard of calico just as long as a yard of silk, but you cannot buy a yard of silk for the price of the calico, and there is quite as much difference in strawberries as in dry goods or anything else."

Then she came back at me with the statement that she had bought some berries from one of my competitors and thought his berries were sweeter and better than those she had purchased from me, and so I told her the proper thing to do was to buy the other fellow's berries, as my berries were going to sell for 15 cents per quart right through the season, regardless of what she thought. But strange to say this woman kept right on buying my berries at 15 cents per quart, when she could have gotten other berries at 10 cents.

Now why did she do this? Simply because my berries were worth the price, and she knew it, but was simply trying to beat me down.

One day this same woman ordered a full crate of my second-grade berries for canning. The price was $2 for twenty-four quarts. It was fully understood that these berries were to be second-grade, but just to see if there was such a thing as pleasing her, I took a case of fancy berries, and topped each quart with second-grade fruit. This left all the big fancy fellows in the bottom. I delivered the berries to her myself, pouring out one quart right before her eyes. She said, "Yes they were fairly good, but the price seemed over high for second-grade berries."

Now here is where the joke comes in. When I went to collect for these berries, this woman told me that the only decent berries in that whole crate were in the quart I emptied out when I delivered them. She also said that all the rest of the boxes were pretty good on top, but the berries in the bottom of the boxes were simply horrible, nothing but culls. "Now, Mr. Beatty, "she said," you certainly cannot charge me $2 for such a poorly packed crate of berries as these were. Now I do not believe you are dishonest; I know it must have been one of your employes that packed that crate of berries and maybe it was someone who did not like me and just did it for spite. I just wish you could have seen those berries when I poured them out. Honestly, I had a notion to send them right back to the farm!"

Now wouldn't this convince you that it is impossible to please a chronic kicker?

THE BEST AND CHEAPEST. UNIVERSALLY ADMIRED.

NATIONAL BERRY BOX

IN ALL STYLES

The IDEAL IN REALITY

Patented Nov. 17. 1903.

NO skinned fruit; no nailing; no mildew; no warping; no splitting; no waste; no loss. A fruit preserver, folded in an instant. A clean, glossy, substantial package, aiding in the sale of fruits. Made from **Smooth Paper Stock,** coated on both sides with **odorless** and **tasteless best parafine wax.**

First Year's Results:
Sales in 29 States and communication with 44 States of the Union.

LESLIE STYLE GREATLY IMPROVED—double reinforced on bottom edge, which gives also EXTRA support for bottom on all sides. Folded-up sample sent on receipt of ten cents

WRITE FOR CIRCULARS AND PRICE-LIST AND READ UNSOLICITED TESTIMONIALS.

NATIONAL PAPER BOX CO.
KANSAS CITY, MISSOURI.

And if the berry grower listens to such people he would be giving his berries away.

The only satisfactory plan is to make a price and stick to it, even though a few quarts of your berries do spoil. The berries are not going to get a chance to spoil if you pack them honestly. There always are enough people who are willing to pay a good price for fancy fruit to purchase your entire output.

Here is one thing I wish to impress upon your minds. Do not listen to the kickers, but just go ahead packing your fruit attractively and stick to your price. What one has done you can do.

Helpful Hints for Strawberry Folk

SOME excellent suggestions are made relative to many phases of strawberry production in an article from the pen of Wilfrid Wheeler which appears in the Garden Magazine for April. In this article the writer says:

"The strawberry is the most important fruit for the home garden; first, because it is quickly grown. The amateur very often rents his garden and cannot afford to wait five or six years for such fruits as apples, pears, plums, etc., while the strawberry, which can be grown in a short space of time, answers his purpose well.

"It is the most important, also, on account of its adaptability to all kinds of soil. Any garden soil that will grow peas, beans, corn or potatoes will do for strawberries, though modification may be necessary. If your garden is low and damp, with rain-water standing in pools on the ground, some means of drainage must be employed, for the strawberry does not like to have the ground-water nearer than eighteen to twenty inches from the crown of the plant. A few tiles laid through your garden, leading into a well or ditch, will improve these conditions. If the ground is sandy and dry, add some heavy soil, meadow-mud or well-rotted manure, and, also, to get the best results, have the garden hose within reach. If, on the other hand, your soil is heavy, with a clay subsoil, work in some sand at the time of trenching.

"Whatever your soil may be, you must trench it to a depth of at least fifteen inches, adding stable manure and fertilizer. This trenching may seem unnecessary, but it will save a lot of trouble later on, especially with regard to moisture conditions. In a dry season, the roots will go down deep in a well-trenched soil, and in a wet season the surplus water will drain away more quickly.

"When locating your bed, choose the sunniest spot in your garden, which may not of necessity be flat and level. Don't plant strawberries under currant bushes, or under pear or apple trees, for with only a few square feet in the sun you can produce more berries than from a larger space in the shade. Be sure to give your bed some protection from sweeping winds: a fence or a hedge on the north side will make ideal conditions.

"The strawberry is remarkably free from the attacks of leaf-eating insects, but is often troubled by a far worse pest—namely, the white grub larvæ of the June beetle, which eat the roots of the plants. To get rid of this pest, an ounce of prevention is worth a pound of cure; so do not plant strawberries on new sod land, or after a crop of potatoes, both places being conducive to the propagation of this pest. The grubs are found very often in old garden soil; so, if this must be used, treat it first with a good dressing of lime.

"If it is desired to have strawberries earlier than the regular crop, take a piece of ground six by six feet, or larger if you wish to use more sash, and set plants in August ten inches apart, giving the same treatment as for hill culture. Just before the ground freezes, make a frame about these plants to carry two three-by-six hotbed sash. Bank up the soil on the outside to the top of the frame and give the plants extra protection, by first placing pine boughs upon them, then straw or hay over these, finally covering the frame with boards laid rather loosely. Do not make the frame so that water will stand in it, or you will come to grief. About the first of March take off the boards from the frame and put on sash, but do not remove the mulch inside until it has thawed out. Cover the sash at night with mats, giving plenty of air on warm and sunny days. When the plants come into flower, remove the sash on bright days, in order to give the blossoms a chance to pollenize. Water must be applied so as not to wet the flowers, and liquid manure may be used until the petals of the blossoms fall. With care, the fruit in this frame will be ripe at the time the out-of-door plants are in bloom. The Marshall, Senator Dunlap, Nick Ohmer and Brandywine are good varieties for frame culture.

"In conclusion, the important things to keep in mind, in order to have a successful home strawberry bed, are: Good plants, constant cultivation, plenty of manure, water during a dry season, and ample winter protection."

The Strawberry Inspiration

KENTUCKY grows splendid strawberries—no doubt about that. But one can imagine what sort of fruit it must be to inspire the editor of the Louisville Herald to rhapsodic utterance concerning the product of his own county, as in the following:

"Queen of strawberries is the Jefferson county variety. It is Edenic, for all the best Aztec and Seminole traditions, supported by the most ancient documents that paleontologists are able to decipher, agree that the Garden of Delight lay somewhere between the Big Sandy and the Tennessee, probably taking in Green river, without the headaches, Salt river, without its mint beds, Louisville, without its politics, Jefferson county with its strawberries, and Lexington with its fine horses.

Strawberries, indeed! The Jefferson county variety is a lover's dream, gourmand's delight, a poem dropped from the stars. From it comes the blush to the cheek of Kentucky's maid, lusciousness to her lips, the laugh to her eye. Strawberries? The Great Artificer could never think of any other place for their production in highest culture. Where else could be got the cream inseparable from the true strawberry? Where the right kind of people to enjoy that stimu-

BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT
THE MICHIGAN BASKET FACTORY OF
WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

HEADQUARTERS FOR

Berry Boxes

PEACH AND GRAPE

BASKETS

ALSO MELON BASKETS

Established in 1869

Experience Counts

To obtain highest prices for your fruits ship in our packages

Illustrated Price List Free

Wells-Higman Co., ST. JOSEPH, MICH.

Webster Basket Co.,

Manufacturers of the

BEST WIRE-SEWED BERRY BASKET ON THE MARKET

Get our Catalogue and Price before ordering elsewhere

WEBSTER BASKET CO.,

Box 40. WEBSTER, Monroe Co., N. Y.

Fruit Packages of all Kinds

Before ordering your supplies write for our **Descriptive Catalogue and Price List.**

BERLIN FRUIT BOX CO.,

Erie Co. Berlin Heights, Ohio.

Berry Baskets Quarts, $3 per 1,000

Hallock's Cups, Hallock's Boxes, Crates, Etc., in stock.

Send for List. W. D. Soper, Jackson, Mich.

lation to love, that coronation of hope, that consecration of loveliness; but in Kentucky, land of love, sweetness and tenderness? The Kentucky strawberry is the climax of Fragrarian excellence. It will be here in abundance for the home-coming."

The Value of "Sticking"

THERE are many disconsolate strawberry growers "down South" just now. Because the season of 1905 was extremely wet in the states of Alabama, Mississippi, Tennessee and Texas, thousands of the men who had begun to grow berries on a large scale for the Northern markets simply gave up in disgust. And this season, an ideal one in every respect, they have nothing to ship to market, and they see how great was their mistake. It is not too much to say that the loss to the South just because the growers in these four states got tired because of one untoward season, will represent many millions in money and untold loss in prestige for both individual producers and communities which had won fine reputations for quantity and quality of berries produced.

It is the old, old story of man's too-willing submission of his will and his powers to temporary difficulties. What the strawberry growers have done in this instance has occurred in every state in the Union at one time or another. Potato growers in Michigan and Wisconsin have done the same thing; orange growers in Florida, demoralized and despairing because the frost had become so severe, quit the business and lost large opportunity by so doing. And the list is a long one. Isn't it time that the agricultural world—the world that looks to the soil and the sun and the rains of heaven to give it all it expects to get in material way—isn't it time this numberless thousands of folk were learning nature's ways; learning that once in a while there is bound to be a backset as the seasons roll 'round and bring an excess of moisture now and the dread drought at another time? But that these at their worst are only temporary?

It is a fact, borne out by the experience of centuries, that the man who takes up one line of production, learns it thoroughly, practices the very best methods, and stays by his work year after year, is the man who wins out in the long run, while the one who is frightened out of his vocation by every veering of the wind never succeeds at anything; his life is one big failure. And this is as true of communities as it is of individuals.

We hope that our friends in the South who have had this experience may learn wisdom from it. Certainly, as they see trainloads of strawberries going to market, sent there by those who had the courage and the faith to stick to their strawberry

THE RIM WINS

IN order to demonstrate to our own satisfaction that the *Wax-Lined Paper Berry Baskets* will carry berries as far and in as good condition as any other package made, we had shipped to us from Lakeland, Florida, March 7, the 64-quart refrigerator shown in the illustration, partly filled with berries in *Paper Baskets* and the remainder with berries in wooden baskets.

The refrigerator reached our office after 5 p. m., March 12, and on unpacking the case we found that **ALL BUT ONE** of the **WOODEN BASKETS** showed **MOULD**, while **NOT ONE** of **THE PAPER BASKETS** was mouldy or tainted in the least.

Several of the wooden baskets were split and broken, while but one of the Paper Baskets showed the least effect of the test.

This test effectively puts a stop to any claim that the Paper Berry Baskets cannot carry berries a long distance and stand up.

They can, and in better shape than any other package.

THE BASKET WITH THE RIM IS AT THE TOP

Others follow and try to imitate, but

THE RIM WINS

PURE, PERFECT, CLEAN, TAINTLESS, NEAT, ATTRACTIVE, HYGIENIC, SUBSTANTIAL, ODORLESS, FREE FROM DUST AND DIRT, WATER, FUZZ, AND JUICE PROOF

Send for Free Sample and Catalogue

MULLEN BROS. PAPER COMPANY

Dept. B. ST. JOSEPH, MICH.

fields, they must realize how foolish were their fears, how short-sighted the policy that led to such harmful results.

You can put this down as a principle by which to be guided: There never has been an overplus of good strawberries in any of the large markets in this country; so far as now may be judged there never will be. That means that there always will be strong enough demand to consume all of the strawberries that are properly grown and properly marketed, and at profitable prices. This being true, no temporary conditions, such as a wet or a dry season, should influence anybody to go out of business. Take your gains with thanks and your losses philosophically, knowing that he who works with nature faithfully and does well his part is bound to win oftener than he loses.

Strawberries for Select Trade

COMMERCIAL strawberry growers should, as far as possible, grow for a particular trade. In sections where berries are shipped by the hundreds of carloads and markets lie far away from the fields, this is more difficult; still it may be done even there with profit. But where the sale is in the neighborhood, or comparatively near the place grown, and especially where the grower may superintend the marketing, catering to select trade ought always to be the plan adopted. One Maine grower recently had an account of his experiences in the New England Homestead, in which he attributed his success largely to this fact. He says:

"My success has not been largely due to any special advantages in soil, location or situation, climatic influences, or general favorings of fortune. In fact, all these have been rather against me, yet I have been very successful with strawberry plants. Before beginning I studied well the essentials of strawberry growing. First, a natural liking for the business; second, determination to leave no stone unturned to get at all the best possible methods of pursuing it, in all its branches, and third, to get the best varieties suitable to this climate and my trade.

"I experimented with many varieties, many methods of culture, many fertilizers in many forms of application, in order to find out how I could grow the largest yield of finest fruit at the most profit. It was my purpose to grow berries that my customers would want, as soon as they saw them, so they would be willing to pay a good price for them; I catered for the trade of those who could well afford to pay good prices for fancy berries. The best new variety I tested is the Uncle Jim [known more popularly as the Dornan.] A strong grower, large healthy plant, and large fruit, it has no equal among anything I have ever tested; and as a yielder it is well up with the very best. In quality it is fine, and is quite firm. In fact, it is the best all-round variety I have ever seen growing. I feel certain, that with a favorable season, with my method of culture, on two-year-old beds, I can easily gather 10,000 quarts to the acre. I have over one acre of such beds of fruit this season, and, except where deer unfoliaged the plants just before the covering season, nothing was ever seen around here with such heavy foliage when they went under covering for the winter."

Hygienic Value of the Strawberry

By Abbie E. Cooper

THERE are certain micro-organisms that act on the soil and liberate food elements for the use of plants. Some physicians claim that iron requires such a preparation by vegetable organization, tinctures of iron not being assimilated. Instead of using these drugs, physicians prescribe strawberries and such fruits as are rich in these elements and have them in a form in which the body may use them. The juices of such fruits as the strawberry, the apple and some others are the best known solvents and are invaluable as aids in removing waste products from the tissues.

The analysis of the strawberry, as I find it in Mrs. E. E. Kellogg's Cook Book, is as follows, the figures representing percentages:

Water	87.6
Albumen	1.1
Sugar	6.3
Free fat	.5
Free acid	.9
Pectose	.5
Salts	.8
Cellulose	2.3
	100.0

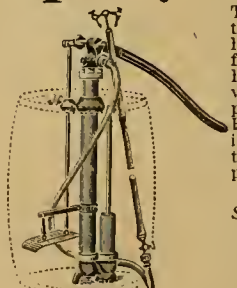
Aside from its large proportion of distilled water the strawberry has a nutritive value of about 10 per cent. This is in the proportion of six carbonaceous to one nitrogenous, which is the required ratio for a perfect food.

Seven years ago a friend of mine obtained relief from a most obstinate attack of indigestion and constipation by adopting an exclusive diet of strawberries and graham bread. She used absolutely nothing (no sugar or milk with the strawberries) except the bread. She was unable to secure granose, granola or malted nuts, but succeeded without them. She had tried many things before without success before she adopted the strawberry diet. The strawberry is of good value as medicine as well as food and refreshment.

Mt. Blossom Fruit Farm, Mich.

Let us Act as Your Factory
THAT'S OUR BUSINESS
We make nothing of our own for sale. Manufacture exclusively for others anything in metal. We refer you to the publishers of this magazine.
Kalamazoo Novelty Co., 200-216 Rose St., KALAMAZOO, MICH.

BARGAINS IN PLANTS & TREES
Hardy Varieties: Strawberry, Raspberry, Blackberry, Currant and Grape Plants, Apple and Plum Trees, Seeds, Roses, etc., at half agent's prices. Bargain sheet free. North Star Plant Farms, Cokato, Minn.

Spray or Surrender

That is the ultimatum that insects and fungi have served on every fruit grower of America If you do not heed the warning you will not get profits from your orchard Every man who sprays intelligently at the proper time finds it the most profitable operation on the farm
Send for illustrated catalog of the Eclipse Spray Pumps and Outfits
MORRILL & MORLEY,
Benton Harbor, Mich.

THE AUTOMATIC ROW SPRAYER

Is the Ideal Outfit for Strawberries, Potatoes, Beets, Etc. Three nozzles to the row. High pressure forces mixture to every part of leaf and branch. No cost for power.
The Government Buys Wallace Sprayers
Two orders just received for these Automatic Row Sprayers from the United States Government for beet spraying at Experiment Stations. After full investigation the Government selected Wallace Sprayers as better than all others. In adaptability, economy, thorough work, and easy handling they have no equal
Other Automatic and Gasoline Power Sprayers for orchard and field work. **"The Wallace Spray Way"** gives all particulars. FREE. Write for it.
WALLACE MACHINERY COMPANY, Dp't 50, CHAMPAIGN, ILLINOIS

Commercial Fertilizer and the Strawberry

By C. W. Foster

THE use of commercial fertilizers for growing strawberries for market is more largely followed in the South than in the North. Stable manure is plentiful in the North; it is a very scarce article in the South and so much more valuable in making a corn crop than in making a berry crop that I rarely have seen it used. At three large shipping points within forty miles of where I sit writing twenty-five to thirty carloads per day will be shipped this season, and on some days, the largest shipping days, the shipment may reach forty carloads, and I venture to say that in a season of three weeks, not one car load of berries has been raised by the use of barn-yard manure.

First of all, it needs to be understood and thoroughly fixed in the mind that when we fertilize one year, we not only expect to produce the next crop of berries from that fertilizing, but we do produce them from that fertilizing.

We have found from sad experience that the use of a nitrogenous fertilizer in the spring before the plants are in bloom, and while they are in bloom, makes the berries so soft that they will not do to ship by express or freight. The addition of a phosphatic fertilizer in the spring has the same effect in a less degree and both unfortunately prolong the bearing season and exhaust the plants.

With us this is a misfortune. Our shipping season is from two to three weeks. It is much better that our plants cease bearing at the end of that time and save their strength for the next year. We never take less than three and sometimes five crops before turning under a field of berries; and if the field is well worked the fifth crop is as good as the first crop at least.

Potash as a fertilizer gives color to the berry; undoubtedly it could be applied in the spring to advantage on a light-colored berry, but we have not found it to be necessary, for applied late in the fall it seems to serve all purposes, and with most of the berries we grow here, i. e., the Excelsior, the Klondike, and the Lady Thompson.

As an illustration of our methods I will give the history of a one-acre patch of Lady Thompson for the year 1902-1903.

After the season of 1902, which was a light pick, owing to a very late frost, the berries were barred off, that is, a one-horse plow was run on each side of the row, turning a furrow away from the plants, or rather, in this instance, the entire middle was thoroughly plowed, turning the soil away from the plants, cutting lots of the plants up, and leaving a narrow ridge about six inches in width. The rows were then hoed out, that is the hoe was struck through this ridge of plants so as to leave about every foot, two or three plants—last year's plants—old plants with their large crowns being discarded as far as possible. Needless to say, all weeds and grasses that could not be reached by the hoe were pulled out by hand. The plowed ground in the middle was then thoroughly pulverized by a one-horse large-toothed harrow. The ground was pretty grassy and as the grass accumulated in bunches, it was burnt and the middles were at once turned back to the berry row. It would have been an ideal time to fertilize before turning the soil back to the berry plants, but there were more acres to attend to and it could not be done there.

In a few days all the berry fields were brought to the same stage and the plants were already making runners, when a harrow was run twice in each row to level and fine the soil, and this was followed by a narrow shovel plow or sweep to sift a little fine dirt among the plants and to leave a deep furrow for the fertilizer.

The fertilizer used was acid phosphate, 200 lbs., cotton-seed meal, 100 lbs., and a sufficient quantity of a well-known potash salt to give about 30 lbs. of potash per acre. This was distributed in the furrow on each side of the row at the rate of 400 lbs. per acre. The potash salt was additional to this and put down at the same time. A scooter run in the furrow thoroughly mixed the fertilizer with the soil and again the one-horse turning plow was used to throw down the ridge in the middle between the rows. There was not a weed to be seen and it was nearing the first of June. The after cultivation was mostly a matter of harrow and sweep, with a little hoeing. Not a runner was cut and the Lady Thompson makes plenty. You may judge it was a "matted row." There was no need for mulching. None was applied and in the spring some grass sprang up between the rows.

According to all the books, professors and theorists there should have been no berries, or if any, very small ones, but neither books, professors nor theorists were in it. This was the only Lady Thompson we had in and in ten days we picked and shipped 250 crates—quart crates—of large fine berries. And in our mind's eye we are comparing them with Mr. Beatty's Covington berries, and he sure raised fine ones. And then the strike came. I don't know how many crates rotted in the field but they were not a few.

The treatment of this acre is typical of the way we raise berries in the South land. When we raise them by the acre for market we cut no runners, except such as are cut accidentally. We do not, as a rule, fertilize in the spring for the reasons I have before suggested. We do not mulch, but our plants are so thick on the ground and on the edges of this "matted row" there is usually a short

AN ILLINOIS GROWER AND HIS GANG OF PICKERS

grass which grows only a few inches high, which dies down by the first to the middle of May, which keeps our berries from getting sandy or dirty.

In conclusion, we would advise our Northern friends who must use commercial fertilizers to gather their berry crop and then fertilize for the next year. But if they wish to prolong the season of bearing apply in the spring as early as possible one or two hundred pounds of a high-grade acid phosphate and with it such an amount of some potash salt as will give 20 to 30 pounds of potash per acre and then be very careful not to let the berries get too ripe on the vine or they will not stand shipping any distance.

Meltronville, Miss.

A Question For Southerners

ONE of our Mississippi readers would like to have the experience of some of his neighbors with the Senator Dunlap berry, and writes The Strawberry as follows:

"How does the Senator Dunlap compare in earliness with the Lady Thompson, the Klondike, the Excelsior, at the South?

"Southern growers please answer and give their experience."

They Work Without Pay

BOYS and girls who read The Strawberry and are interested in the tilling of the soil may learn an important lesson from the following little sketch for which we are indebted to Sunbeam:

"Onions, turnips, beets, tomatoes, peas, celery—my! I guess I'll have as grown-up a garden as grandfather's is!" exclaimed Willie happily, as he named over the different seeds he was going to plant; as soon as he got the "corner lot" ready for the beds.

Suddenly he stopped digging and began striking his hoe vigorously into the soft soil.

"What's the matter, Willie?" called grandfather from the onion bed; "what have you found?"

"One, two, ten, twenty—why hundreds of them, grandfather, and they'll eat every seed I plant!" exclaimed Willie excitedly, as he began to cut the soil with his hoe more vigorously than ever.

"Hundreds of what?" and grandfather raised himself slowly from his knees.

"Worms, grandfather, and I'll not have a single thing come up."

The little fellow's face looked a very picture of despair, as visions of early vegetables—a surprise for father—that he had planned to take back to his city home, suddenly disappeared.

"Why I never call them worms."

"But they are worms—angle-worms, grandfather."

"Yes, but I never call them so," laughed grandfather at the serious little face. "I call them farmers—my assistant farmers—and the more work I have for them, the better I like it."

"Farmers! Worms, farmers—and work? Why, grandfather, all they do is squirm and wiggle."

"Certainly, that's their work. Don't you see they angle their way through the soil, and so make it light and loose. They are regular little plows; fertilizing the soil, too, as they plow, so to speak."

"But—but, grandfather, don't they eat the seeds while they are resting?"

"No, indeed; my little assistants don't destroy; they only aid in my crop-raising."

"I didn't know I was going to have some hired help this summer, when you gave me my garden" laughed Willie.

"You're not going to" chuckled grandfather, as he returned to his onion-bed; "they work for nothing!"

WORD of a new late variety strawberry comes from Wisconsin, where J. L. Herbst, long secretary of the State Horticultural Society, is said to have developed a Bubach-Gandy cross that is reported to possess the strong points of both of these excellent varieties. He has given it the suggestive name of "Tardy." The new variety is said to be a strong plant maker with heavy foliage that protects the fruit from sun and rain. The foliage resembles Gandy, growing up well from the ground with strong stems and larger leaves, somewhat darker in color. The fruit has taken traits from both parents. It is large and conical in shape, being a little more pointed than Gandy with a large green calyx similar to Gandy. In color and flavor it is very nearly like Bubach. It holds up well after being picked and makes a good shipper. The fruit is borne on strong, stocky fruit stems that do not extend above the foliage, and it is claimed to be far ahead of either Gandy or Bubach in yield.

THAT old joke about crossing the milkweed with the strawberry in order to develop the combination of strawberries and cream without going to the trouble of mixing them, evidently was not a joke so far as Alonzo Murphy of Morristown, N. J., is concerned. The newspapers tell us that Jack Frost nipped his hopes in the bud by destroying his combination plants, and one of the local papers says of the attempt to grow strawberries already creamed and the cause of the failure: "Mr. Murphy, being an imaginative farmer, dreamed that he could accomplish this by a judicious crossing of the milkweed and the strawberry. Last fall he grafted several strawberry plants

WOLVERINE FURNACES
Make Comfortable Homes

They burn coal or wood, old rails, stumps, rubbish, etc. They do not heat the cellar and spoil vegetables. They are easy to feed and manage. WOLVERINES eliminate all danger from fire, are sold direct to the customer, saving jobber's profit, and are installed by our own men under a written guarantee to give perfect satisfaction.

THE WOLVERINE

Is the best furnace because it is **tubular** in construction.

Our large illustrated catalog explains this fully. It also contains cuts and descriptions and interesting and valuable information on house and chimney planning and building for best results in heating and ventilating. Drop us a postal to-day and ask for catalogue "C". It is FREE. Address

MARSHALL FURNACE CO.,
214 Exchange Street, MARSHALL, MICH.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

The Northland Shop

Designers, Illustrators and Engravers

Let us figure with you before placing your work

NO. 11 3RD AVE.,
THREE RIVERS, MICH.

THE CRESCENT ENGRAVING CO
KALAMAZOO, MICHIGAN

Engravers, Electrotypers
Catalogue Makers

Landscape and Nursery Work
A SPECIALTY

Only house in the West making Steel Electrotypes. For durability and definition these practically equal original engravings

Samples and Estimates
Cheerfully Furnished

on the milkweed. One grew sturdily close by Mr. Murphy's kitchen range, and was in full fruitage when alas! the fire went out and it succumbed to the cold. Mr. Murphy says that each strawberry when examined was found to contain a quantity of cream varying from a few drops to a teaspoonful, depending on the size of the berry. He is not discouraged, and promises to repeat the experiment next summer." We fear we shall have to take even this *cum grano salis!*

MOSQUITOES and strawberries make a queer combination certainly, but that is what the people in the neighborhood of Mount St. Elias can boast of in a region of perpetual ice and snow. Along the edge of the glacier, it is said, is a strip of luxurious vegetation, where strawberry vines cover the ground for miles.

Strawberries vs. Lager Beer

ONE of our family—The Strawberry's great family—away out in Idaho has undertaken a work along the lines of practical temperance that must win the instant approval of everybody. M. H. Vorberg of Haley, Idaho, is the man and his plan is to furnish the sweet and healthful strawberry, dressed in rich cream in place of the beer that intoxicates and makes all kinds of trouble in this good old world of ours. Everybody who knows about such things declares that modern beer is generally a concoction of stuff so full of poison that it is the parent of an innumerable family of diseases, fatal alike to mind and body. Our German friends who used to drink the lager of the Fatherland tell us that the American article, as a rule, is far more dangerous than the old country brew, and everybody will admit that anything that steals away health and reason is a pretty good thing to let alone.

Well, Mr. Vorberg has observed human nature long enough to know that the way to get mankind to leave off that which is bad is to offer him a good substitute in attractive form, and with remarkable good judgment has decided that the strawberry is the thing—the only trouble being that you can't have strawberries all the year 'round, while breweries pour out an endless stream of lager the year through. However, Mr. Vorberg will make the most of the season while it lasts, and will fix up a comfortable place, with neat tables where one may sit down and enjoy to the full the ripe fruit smothered in cream, or in crisp, light, fresh strawberry shortcake, or both, if the customers want them, and he says he intends making his experiment more attractive than was ever any saloon.

All success to this practical temperance movement, and may there be many others to follow his example! Pathologists tell us that the juices of fruit are distinctly anti-alcoholic in their effects and are an aid to the cure of alcoholism of high efficiency. Let everybody try this strawberry cure—it's a good thing for all conditions and all people.

I BELIEVE in a spade and an acre of good ground. Whoso cuts a straight path to his own living by the help of God, in the sun and rain and sprouting grain, seems to me a universal workingman. He solves the problem of life, not for one, but for all men of sound body.—Emerson.

CHILDREN on the farm and no strawberries! This is almost a crime. Last year we just didn't know what to do with ours, they grew so fast, so we all ate all we could, and how the little folks did enjoy them! Of course, we can grow them! Minnesota and the Dakotas are the very home of strawberries. Last year at Fargo, N. D., a man from an acre and a half grew over $500 worth. Just think of it, and many a farmer's child never sees a strawberry unless it is bought in town. Put out one good long row, better two, the whole length of the garden, says the Dakota Farmer. Keep

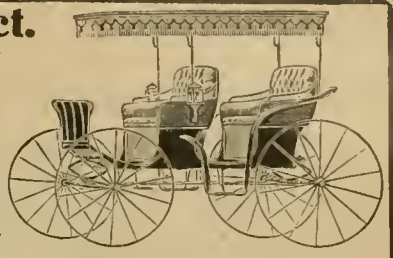
33 Years Selling Direct.

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.

No. 647. Top Buggy. Price complete, $10.00. As good as sells for $25. more

We are the Largest Manufacturers in the World

selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large free catalogue.



No. 331. Canopy Top Surrey. Price complete, $60.00. As good as sells for $25. more.

ELKHART CARRIAGE & HARNESS MFG. CO., ELKHART, INDIANA.

A KEWANEE System Means

- Plenty of pure, fresh water
- Cool water in the summer
- No freezing water in winter
- Absolute protection from fire
- Decreased insurance rates
- No expensive repair bills
- A plant that will last a lifetime
- A city water supply without water tax

WATER FOR YOUR COUNTRY HOME

WITH a Kewanee Water Supply Outfit you may have every convenience of a city water supply. The Kewanee System will take care of all your requirements for the house, garden, barn etc. You will have an abundant supply of water delivered anywhere you want it,—and all this without payment of any water bills. A Kewanee tank is placed in the cellar or buried in the ground. The water is pumped from your well or cistern into it. This creates the pressure, which forces the water to the various connections. Just the thing for strawberry culture, flower beds or vegetables. No elevated or attic tank to freeze, leak or flood the house. No expensive repairs. The Kewanee Outfits are complete not the pump alone or the tank only, but everything necessary to provide a first class water supply. Guaranteed to give perfect service. Write for catalogue No. 15 giving names of users in your section. Free, if you mention The Strawberry

KEWANEE WATER SUPPLY CO., Drawer R, KEWANEE, ILLINOIS

Do Your Doors Rattle?

Of course they do. 99 out of every 100 rattle and slam with noise enough to drive anyone crazy

Stop It!

with one of our *Anti-Door-Rattle* Attachments. Anyone can attach them to the door casing. They last forever. Self-adjusting. The best thing you ever saw. They all say so

Agents Wanted; No Has Beens

Price: 10 Cents Each, or 75 Cents per Dozen
State whether light or heavy door

The American Anti-Door-Rattle Co.
415 Perrin St. YPSILANTI, MICH.

them clean and well manured and when the ground freezes up next fall cover them with a little strawy manure and in the early spring rake it away from the plants. Mr. Gregg, of Minnesota, who says he can grow strawberries cheaper than he can potatoes, and judging from the strawberries we have seen growing on his farm, we believe he can come pretty close to it, plants his rows very wide apart and piles straw between so deep that no weeds grow and the ground is always moist, but good surface cultivation will do it.

Poultry With Strawberries

SPEAKING of the advantages of combining the raising of poultry with the growing of strawberries, a writer in the Albany (N. Y.) Journal declares it to be one of the most profitable of combinations and continues:

"When one speaks of poultry in connection with any low-growing plant most people can see only the scratching birds and the ruined plants, but the combination has been and is being profitably carried out. If one selects one of the larger breeds of hens for this combination the scratching part of the proposition will be reduced to a minimum, and if the fowls are not required to obtain their entire living from the patch of strawberry plants, they will do comparatively little damage. It is, of course, understood that the fowls are not allowed on the patch until after the fruit has been gathered, but from that time until they go into winter quarters, they will be exceedingly useful, for they will take good care of all the insects, do little damage in the way of scratching, which can be readily repaired by going over the plot each day, and their droppings will add materially to the richness of the plot.

"If the plantation covers a considerable area it will be a good plan to have several small colony houses on the plot so that the hens may have their own quarters and thus work over a smaller area. The profit from this combination is good and neither will interfere with the other, especially if the fowls are raised for egg production. Try it on a small scale and increase as experience proves it pays."

THE manner in which strawberries are shipped from the South is interesting. Large boxes, substantially built, are constructed to hold between sixty-four and eighty quarts of berries. The berries are placed in the bottom of the case, and at the top are two large pans, into which ice is placed. Cold air being heavier than warm air, the atmosphere in which the berries lay preserves them until they reach their destination, and they are usually in perfect condition. The first shipments of strawberries reach the North about January 1. The New York and Chicago markets usually take them, and the price is between $1 and $1.25 a quart. They are shipped by express, and about four days is allowed for transportation from the extreme south to the most northerly states.

NEW JERSEY is famous for many things, but just now its strawberry stories are among its most interesting products. Here is the latest, which one will do well to accept with certain reservations, even though he may hope it shall prove true: "Fresh strawberries each month in the year from the same plant is the wonder produced by Henry Joralemon, who recently returned from California, where he compared notes with Burbank, the plant wizard, and says his new monthly bearing plant is practical, and may be successfully cultivated by any one. The ultimate result will be to place fresh strawberries on the table at Christmas as well as in June, all from the same plant. It was because he wanted a certain hardy strawberry plant to cross with his present plant that he spent the summer in the West, and journeyed 2,000 miles north of Seattle. It was in this chilly climate that Mr. Joralemon found the plant he sought."

Learning the Better Way

By George R. Kasey

MY experience in the strawberry business is not long; but will tell you about it anyway. On my first attempt I set nine rows about thirty hills long and let them mat in the rows. I did not keep the runners cut off as should have been done, but fought grass and weeds. My health being bad I worried about it and began to think the strawberry business wasn't the thing it was cracked up to be.

When picking time came I kept an account of every quart sold and they brought me $29.50. Just think; off of nine little rows! I was so well pleased that the next year I went into it with more energy. I set about three times as many as I did the first year—over-did the thing a little. I had all the work to do myself so I could not work them so well as I did the first, but did the best I could and my second little crop brought me $55.

I was tolerably well pleased, but might have been better if I had known the proper way of cultivating them. I thought I knew a little about how to grow strawberries until I read your instructions. Now I see it was little I knew, sure enough. I would not take $10 for what I already have learned through The Strawberry.

Leslie, Va.

LITTLE ADS. FOR OUR FOLKS

AN ADVERTISING EXCHANGE FOR ALL Strawberry Growers in which they may make known their wants. If you have anything to buy, sell or exchange, need a job or are looking for help in your strawberry work, here is the place to make it known. Count name, post office, initials, words or numbers each as one word, and remit a sum equal to 2 cents for each word for each insertion. No order will be accepted for less than 25 cents and cash must accompany each order. Advertisements must contain address, otherwise we cannot forward replies from this office. Remit by post office or express money orders.

PRINTING FOR STRAWBERRY GROWERS—Letter heads, envelopes, cards, labels. First-class work at low prices. The Kellogg Publishing Co., Three Rivers, Michigan.

TRY the Kellogg malleable-iron, one-piece Dibble, if you would turn plant-setting into a delight. Pays for itself in one half-day's work. Write the Kellogg Co. for their little folder on "How We Keep Down the Weeds." 'Twill help you in your work. R. M. Kellogg Co., Box 775, Three Rivers, Michigan.

25 VARIETIES of Poultry, Eggs and Fowls for sale on short notice. Send 4 cents for catalogue which will give you prices and descriptions of best fowls and eggs. W. SEIDEL, Box S, Eleroy, Ill. (46)

RHODE ISLAND REDS—A superior strain of heavy layers; vigorous, farm-raised stock. Eggs $1 per sitting. J. McPartland, Williams st., New London, Conn.

BARRED PLYMOUTH ROCKS, White Plymouth Rocks, Rose-Comb Brown Leghorns. Farm range for stock. Choice of varieties, $1.25 per 13. Two or more sittings, $1.00 each. Z. Turner, Eleroy, Ill.

WHITE-CRESTED BLACK POLISH and imported English Redcaps. Two handsomest breeds. Eggs, $3 per sitting; two sittings for $5. Stanley Turner, Eleroy, Illinois.

FERNWOOD POULTRY FARM, breeders of large, vigorous, heavy-laying Barred Plymouth Rocks; also Mammoth Pekin Ducks that won all firsts, Toledo, 1906. Eggs, $1.25 sitting. Route 2, West Toledo, Ohio. (45)

WHITE WYANDOTTES EXCLUSIVELY—Pedigreed Plants and Pedigreed Fowls should go together. We have the fowls, and will be pleased to express the eggs at $1.50 to $3.00 per 15. Davis Poultry Co. Audubon, Iowa. (45)

B. P. ROCKS—Eggs $1.00 per setting. 14 chicks guaranteed. Mrs. Edith Chelton, Landonville, Md.

WANTED—Position by single man as manager of small sized fruit farm. Best of references. C. H. Graves, State College, Pa.

MICHIGAN FARMS Good improved farms, splendid soil, fine climate, selling cheap. Write for "List I". BENHAM & WILCOX, Hastings, Michigan.

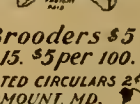
BEEBE'S SINGLE COMB WHITE LEGHORNS ARE THE BEST HEAVY TESTED LAYERS

EGGS

15, $1.00; 20, $3.00; 100, $6.00.

H. C. Beebe, - Route 5, - Canton, Illinois.

$10.00 FOR THIS 200 EGG PERFECT HATCHER & BROODER COMBINED



100 Egg Size $6 Brooders $5

B. P. Rocks-Eggs $1 per 15. $5 per 100.

TESTIMONIALS & ILLUSTRATED CIRCULARS 2¢

J. A CHELTON FAIRMOUNT, MD.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and SPECIAL OFFER TO YOU.

R. R. FISHER, Pub., Box 86, Freeport, Ill.

IMPORTANT TO FRUIT GROWERS

I have on hand one million "Invincible" Berry Boxes. Can fill orders instantly at $3.00 F. O. B., Milwaukee, in any quantities. Best Berry Box ever invented. Ready for instant use; fits any standard crate. Have over 800 excellent testimonials. CHAS. R. LULL, Milwaukee, Wis.

Ways for Having Strawberries the Year Round

THIS is the season of the year when the thrifty housewife lays plans for the days to come when the fresh, delicious small fruits of summer are a thing of the past, and the only way in which they may be enjoyed is in preserves and jellies, jams and canned fruits. With this in mind, The Strawberry presents some recipes herewith, those which are tested and tried and known to be of just the sort that delights the taste and preserves in greatest similitude the natural fruit of the delicious strawberry.

Some folk like to make the fruit the medium only through which to produce sweetmeats, loading them up so heavily with sugar as to destroy all taste of the natural fruit. In this way the different fruits are made to taste alike, the sugar in all of them dominating to so great a degree as to destroy individual flavors. Of course, this is a matter of personal choice, although it must be said that fruits so preserved are neither so appetizing nor so healthful as those containing the minimum of sugar. And the recipes herewith, for the most part, will be found to conform to the plain way of putting up the berry.

There also are recipes here for the immediate use of the strawberry in the way of crisp, feathery shortcakes and flaky pies which we are sure will be appreciated by the cook. Many of these are simple, and all of them are excellent. We shall welcome suggestions for the June issue of The Strawberry from the housewives who think they have something better to suggest than the recipes here offered, or have some new way of making a pleasant dish from their favorite fruit.

Bottling Sun-Preserved Strawberries

Strawberries and raspberries hold the color and shape better when preserved in the sun. Weigh the fruit; to each pound allow three-quarters of a pound of sugar; put a layer of sugar, a layer of fruit, another layer of sugar on a large granite or stone ware platter. Cover with glass and stand in the hot sun. As the sun cools toward evening bring them in; put them out again the next day. Lift each berry carefully with a fork and arrange them neatly in tumblers or bottle. Boil the syrup for five or six minutes, pour it over the fruit, cover with the glass and let them stand all night in a cold place. Next morning cover the jars with melted paraffine over which stretch tissue paper and fasten it down with white of egg. When the covers are dry brush them over with water.

Strawberry Jelly

Measure the juice after straining before putting to cook, and use an equal amount of sugar or less, as you like, for the jelling depends on the pectin of the fruit and the juice will jell with no sugar. For strawberry jelly use some lemon juice or one-third red currant juice as the jelly from strawberries is apt to be less firm than that made from more tart fruits.

When the sugar and fruit juice have been measured, put the juice to cook in a granite kettle free from stains, and the sugar in the oven to heat. The object in having the sugar hot is simply to hasten the work of jelly making, as the boiling need not stop when sugar is added.

Boil the juice twenty minutes, then add sugar and allow the whole to boil up once before taking from the fire.

Pour in jelly glasses which have been rolled in hot water. When jelly is cold cover with melted paraffine.

Canned Strawberries

Make a syrup in the proportion of one cup of granulated sugar to one quart water. When boiling add enough fresh strawberries to fill a quart jar when cooked. Allow berries to merely come to a boil. Carefully lift berries into the cans allowing syrup to overflow to exclude all air. Seal, being careful to tighten cover occasionally as fruit cools.

Strawberry Sponge

One quart berries, one-half box gelatine, one and one-half cups water, one cup sugar, juice of one lemon, beaten whites of four eggs. Soak the gelatine in one-half cup of water; mash the berries and add half the sugar to them; boil the remainder of sugar and the cup of water gently twenty minutes; rub the berries through a hair sieve; add gelatine to boiling syrup; take from the fire and add berry juice; place the bowl in pan of ice water, and beat with egg beater five minutes; add beaten whites and beat till it begins to thicken. Pour into well wet moulds and set on ice. Serve with cream.

Strawberry Jams

For every pound of fruit allow three-quarters of a pound of sugar, one pint red currant juice to every four pounds of berries. Boil the juice of the currants with the strawberries half an hour, stirring all the time. Add the sugar and boil for about fifteen minutes longer. You may omit the currant juice, but the flavor will not be so fine.

Canned Strawberries

After the berries are pulled, let as many as may be put carefully in the preserve kettle at once be placed on a platter. To each pound of fruit add three-fourths of a pound of sugar; let them stand two or three hours, till the juice is drawn from them; pour it in the kettle and let it come to a boil; and remove the scum which rises; then put in the berries very carefully. As soon as they come thoroughly to a boil put them in warm jars, and seal while boiling hot. Be sure the cans are air tight.

To Preserve Strawberries Whole

Select firm, entirely ripe berries; hull and free them from sand. For each pound of fruit allow one pound of sugar, granulated, and for each four pounds one pint of red currant juice and let it boil until they are clear and thick. Add the strawberries, only cooking a few at a time, cook them gently until clear and tender; take them up carefully and place in jars; continue thus until all the berries are finished. Cook the syrup until it will jelly; pour over the fruit and when cool, cover and put away.

Strawberry Pie

Into a rich, deep undercrust that has been baked, put sufficient strawberries to fill, and cover with sugar. Make a meringue of the whites of two eggs and a tablespoonful of sugar; cover the pie with it and brown.

Strawberry Fluff

Strawberry fluff is very nice and is made of one and one-fourth cups of strawberries, one cup sugar, white one egg. Put these ingre-

dients into a bowl and beat with a wire whisk until stiff enough to hold its shape; this will require about thirty minutes. Pile lightly on dish, chill, surround with maccaroons, and serve with cream sauce made of three-fourths cup heavy cream diluted with one-fourth cup milk beaten until stiff, then add five and one-half tablespoons powdered sugar, three-fourths teaspoon orange extract. If heavy cream is not used, omit the milk.

Strawberry Cream

Mash one quart berries with one cup powdered sugar, and rub through fine sieve; dissolve one and one-half ounces gelatine in one pint sweet milk; strain and add one pint whipped cream and the berry juice. Pour in a wet mould and set on the ice to form.

Strawberry Frappe

One quart of fine, ripe fruit, put through a press, and one pound of sugar; let stand until the sugar is dissolved, then add a quart of water, and freeze until thick, but not stiff.

Strawberry Shrub

Pour three quarts of best cider vinegar over nine pounds of fine ripe strawberries, let it stand twenty-four hours, then bring to a boil and strain, add a pint and a half of sugar for every pint of juice, boil together five minutes, then strain again. Put up in self-sealing pint cans. A tablespoonful or two added to a glass of water makes a grateful and refreshing drink.

Serving Fresh Strawberries

Sift confectioner's sugar, and pack it solid into a cordial glass. Invert glass in center of fruit plate, removing glass carefully that mold may keep its shape. Wash fine, large strawberries without removing hulls. Drain and heap them around mold of sugar. They are properly eaten with the fingers.

Strawberry Sauce

One-third cup of butter, one cup powdered sugar, one teaspoon lemon or orange extract. Cream the butter, add sugar gradually and flavoring. To this add one cup strawberry pulp and the lightly beaten white of one egg. Chill thoroughly.

Strawberry Sauce

Cream together butter and powdered sugar. Add flavor, and when ready to serve mix in one or two crushed berries to tint the sauce. Add also a generous quantity of hulled berries cut in slices.

Fruit Punch

Sugar syrup rather than sugar in a crude form is preferable for sweetening any kind of beverage and is especially desirable when the foundation of the beverage is a fruit juice or a combination of several varieties of fruit juice as is usually the case. Boil three pints of water and three cups of sugar twenty minutes. When cold add a pint of strawberry juice, a cup of orange juice, the juice of three lemons and one quart or more of water.

Oranged Strawberries

Place a layer of strawberries in a deep dish, cover thickly with pulverized sugar, then a layer of berries and so on until all are used. Pour over them orange juice in the proportion of three oranges to a quart of berries. Let stand for an hour and just before serving sprinkle with pounded ice.

Strawberry Pudding

To a large teacupful of finely powdered bread crumbs add the yolks of four eggs and a quart of milk. Stir these together, flavor with vanilla and bake. When done, remove from the oven and spread on the top a thick layer of slightly mashed and well sugared strawberries and over this spread a meringue of the whites of the eggs sweetened. Return to the oven and brown slightly.

Strawberry Cake

Bake three sheets of sponge cake. Put layers of strawberries between the sheets of cake, pour whipped cream over each layer and over the top.

Dainty Strawberry Fritters

Beat together one cup sweet milk, one egg, and a level tablespoonful of sugar. Dip into this slices of stale sponge or other loaf cake, having it cut into neat squares. Fry in hot, sweet lard, and arrange on a hot dish with strawberries generously sprinkled with sugar heaped upon each fritter. Serve with either plain or whipped cream slightly sweetened.

We Want An Agent

In every Town in every State of the Union and the Dominion of Canada to take subscriptions for

THE STRAWBERRY

A generous commission will be allowed on each subscription taken, and to the man or woman, boy or girl who will send us the largest number of subscribers in excess of 100 between this time and the 15th of December, 1906, we offer any one of the following list of tours as a prize:

¶ Round Trip to Washington, D. C., and $15 in cash to pay expenses while there.

Round Trip to Niagara Falls and same amount in cash.

Round Trip to Jacksonville, Fla., and same amount in cash.

Round Trip to the Farm Home of The Strawberry and a full week's entertainment.

The winner may choose which of these tours will be taken and when, and The Strawberry will publish a full account of the trip, illustrated with the winner's photograph, and a story of the way in which the prize was won.

Write us for sample copies and get to work.

DO IT NOW

THE STRAWBERRY

118 Portage Ave. THREE RIVERS, MICH.

Plain Shortcake

Three cups sifted flour, one-half cup butter and lard mixed, two teaspoons baking powder, sweet milk enough to make a soft dough. Divide in two equal parts, roll out, spread melted butter on each and place on top of each other and bake.

Strawberry Sherbet

Boil for twenty minutes two cupsful of sugar and three cupsful of water. Remove from the fire and add three cupsful of strawberry juice, juice of two lemons. Pour into cans packed in ice and salt, then just before freezing add one cupful of milk. Freeze and serve in dainty cups with strawberries on top.

Strawberry Floating Island

Make corn starch pudding and pour into glass bowl when cool. Then place layer big red berries on this. Make a meringue of white of egg or whipped cream, sweeten to suit the taste, color the meringue pink with a little juice of the berries and pour this over the berries.

Canned-Strawberry Shortcake

One-half cup of sugar, two eggs, three tablespoons of melted butter, two cups flour, two teaspoons baking powder, one cup milk. Bake in two layers, spread with berries and pour over whipped cream and a little of the juice.

Strawberries and Cream

Always remember that the flavor of the strawberry is the most delicious of all fruits and must not be smothered or neutralized and therefore cream should be sweet and free from taint. It should only be used to stick the sugar to the berries. Where cream is not perfect, clear water is preferred by many.

Some Practical Experiences

By A. D. Stevens

SOME twenty-five years ago when strawberry culture was carried on by the hit-or-miss plan, I began to study the nature of the plants and readily saw that the old method of waiting until the plants began to grow before the cultivator and hoe were started was not the right course of cultivation. I began to cultivate early and make them start to grow when some of the older growers said that I would kill them, because they had not started enough roots and had not become firm in the soil; but it was soon proved that the new method was the right one.

We had fifty-two days of drought, so the old rule of not cultivating in dry weather was practiced by most of the growers in this locality, and to their sorrow nearly all of many patches withered and died. But I began to cultivate and kept it up every ten to fourteen days and by June 14, at the distance of seventy-five yards, passersby took the strawberry vines to be potatoes, the foliage standing eight to ten inches high.

Then we began to watch for new methods of setting plants, as it was difficult to get the roots straight down in the soil. One day I ran across one plant that had the roots all bitten off by a mole or mouse, so that only about three inches remained. I set this plant and carefully watched it for some time, and found it was rapidly surpassing the other plants in growth, so I took the pains to dig it up and found that every root that had been bitten off had started from three to six new white roots just above the ends. So this led me to take some of the other plants up, and I soon observed that they had but very few new roots and the ends withered and turning black. I heartily endorse plant pruning.

I find great pleasure and profit in raising seedlings. I take the seeds from a pistillate or female berry after it has been properly mated, and plant them in summer as soon after they are ripe as possible, and allow them to remain in their place until spring. Then I transplant them at

THE AVERY PRESS

ARTHUR D. AVERY, Proprietor.

WE PRINT

The Strawberry

and solicit the work of other

High Class Publications

THE real value of distinctive printing as a trade producer cannot be computed in dollars and cents. Tasty booklets, pamphlets, blotters, cards and the high class catalogue advertising and stationery printing creates impressions that are lasting in their effect. GOOD PRINTING always pays. It is accorded a hearing and consideration when every day printing would find a premature grave in the ever handy waste-basket.

Modern Ideas Employed in up-to-date printing will win business—money-making business—the sort you are longing for.

Give us an Inkling of what you want, and we will propagate it into an idea.

It is our business not only to create ideas, but to artistically reproduce them *with ink on paper* in business-fetching attractiveness.

It's then up to you-*who wins;* and its easy money.

The Avery Press

One Hundred Eighteen Portage Avenue

THREE RIVERS, MICHIGAN

a distance of four feet apart, and watch them until they fruit, when I take all that show two or more good qualities, set the plants and breed them up by selection, until I have the imperfections all bred out of them.

Bridgeton, N. J.

Renewing the Strawberry Field

By J. B. Graves

JUST as soon as the picking is ended mow the field as close to the ground as the mower can be run. If the trash is heavy enough to interfere too much with the plows, rake it into windrows and haul it off to use somewhere else on the farm. Take now the double shovel, put on the curved calf-tongues, spread them sixteen inches apart and plow across the rows. Plow shallow, not quite the depth of the strawberry roots. This cultivation will thin the plants, plow out the grass and weeds, and partially level the ground. This done, take the single broad shovel and run lengthwise the row squarely in the center. This will plow out the mother plants, those originally set, and will still further thin, cultivate and level the row. When the ground has settled, or after a rain, which would be better, take a narrow "turning" or "breaking" plow and "bar off" rows crosswise of the old ones. If the old rows run east and west, lay off the new rows north and south. Bar off rows eight inches wide and three and a half feet from center of one to center of next. These three plowings will destroy nearly all the plants in the field. There will be plenty left to make a good row. Cultivate this row as you would one newly set. Cultivate often and hoe enough to keep free trom weeds and grass.

Stop your cultivation for awhile about the first or middle of August. By the 20th of September your plants will have run over "all creation." The row will be full, the back will be full, they will be piled upon one another, and "thick as hair upon a dog," If left thick in the row the berries will be small, poorly colored, illy flavored, and unsuitable for a fancy market. Besides, when rows are too wide and plants too thick the berries are much slower to ripen and rot badly in rainy weather.

Now to thin out those overthick plants and give them a final cultivation take the double shovel with the narrow curved calf-tongues, spread sixteen inches apart and cross-plow the rows as was done at the first cultivation after mowing. Do this about the 20th of September. This will plow up many plants, drag many runners out of the row, and cover up many others. To uncover these, to draw the weak plants and runners out into the balk and to level the ground, take a hayrake and run across the rows in the same direction as the shovels, holding it firmly on the ground with the foot. This will tear out the weak runners, and leave the ground much nearer level than it was when the lengthwise cultivation ceased. When a field is served in this way it looks as if it might be forever ruined. But it isn't. It is the making of it. The plants thus treated are given more room and more plant food. They grow strong and hold their rich color until late in the fall, and in the spring they are the first to wake and get ready for business.

The beauty of this method of renewing is that by pursuing it from year to year you can perpetuate your field for an indefinite period and have practically a new field all the time, Besides, it is much less expensive than to plow under the old field and plant a new one.

I have two other methods of renewing, but I like this one the best. If you are a strawberry grower and can keep your nerve with you you might try this plan on a small scale to see how it works.

Neosho, Mo.

We prefer the plan of burning the old bed over, but are glad to give the experiences of others in all matters of this kind.—Ed. The Strawberry.

The Strawberry
In the South

BUTNER PRODUCE COMPANY

Chattanooga, Tenn., 4-7, '06
Kellogg Publishing Co.

The writer was down in Georgia yesterday making some deals with berry growers and saw one field of 40 acres which was the most perfect stand, and showed the result of better cultivation than any crop of berries I ever saw in the North Georgia district. I was at a loss to know the reason of such a signal success—until when we went in to dinner the grower picked up "The Strawberry," then I was "next." The grower is Mr. W. A. Mitchell, Trion, Ga.

FOSTER BUTNER.

Conserving Farm Manures

PRACTICAL horticulturists are coming year by year to understand the fundamental importance of the proper use of farm manure. None is so rich as to afford the loss of fertility; the world itself cannot afford such a loss. Therefore, it is the duty of everyone who has any manure about his place to see that it is given to the land in its best form.

The methods adopted for the conservation of farm manure is an important thing to decide. On this subject Professor Snyder of the Minnesota Experiment Station says: "In connection with the subject of farm manure, there are many points to consider, as composting, hauling directly to the field, the use of the manure spreader, and the crops most suitable for manuring. The question of hauling the manure directly to the field and spreading it, or first composting it, is one that has received considerable attention from practical farmers.

"Experience has shown that wherever conditions will allow, it is best to haul it directly to the field rather than to let it accummulate in yards and undergo leaching, excessive fermentation and fire-fanging. When hauled directly to the field the losses by leaching are prevented and the only losses that are liable to occur are through the formation of volatile gases containing ammonia and nitrogen. The losses in this way, however, are not large, and the advantages of having the manure in contact with the soil so as to cause decay and disintegration of the mineral matter are far greater than the slight loss of ammonia due to volatilization.

"When manure is hauled directly from the stable and applied to land the expense for labor is much less than it would be for spreading the manure in the spring, and the land is in condition for seeding at an earlier date than if the manure had first to be spread and the land worked before seeding."

KALAMAZOO has done itself proud by electing William Thompson to be mayor ot that beautiful and progressive Michigan city. Mr. Thompson is vice-president and directing head of the world-wide popular Kalamazoo Stove Co., and has been giving the general public a "square deal" for so many years that he has the habit so well fixed we are confident Kalamazoo, the Greater Kalamazoo that is to be under his administration, will be governed in the interest of moral and material progress: Mr. Thompson, in an address to the public the evening of his election, said a word that ought to represent the attitude of every administrator of a public office in the land. We quote from Mayor Thompson: "I fully realize that my majority is made up of the votes of persons of all shades of political belief, and I want to assure the citizens of Kalamazoo that I shall be the mayor of the whole people—with equal rights to all and special privileges to none. I call upon all good citizens, irrespective of their political affiliations, to aid me in every possible way in inaugurating and in maintaining in Kalamazoo the era of the "Square Deal for Every Man" and in laboring together for a Greater Kalamazoo."

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

WITH the coming of spring every strawberry grower in the land is up and doing, and the number of questions increases as new problems arise, or as amateurs come to the old problems that have vexed those who have gone before them. This is the beginning of the season when the grower must "make good" the fine dreams of the long winter season, and there is no reason why he shouldn't go his dreams "one better" and produce bigger strawberries and more of them than he dared to think possible—if only he will intelligently read and faithfully follow the instructions that appear from month to month in this department. We say this out of an experience extending over many years, and would not say it if we were not confident you could do as well if the same line of procedure were allowed.

The first thing one needs to have is confidence. If one approaches an undertaking with fear and trembling he has, by that very attitude, invited failure. Read the instructions given; say to yourself: "That says to do so-and-so and in such-and-such a way. I can do it just as well as anybody—and here goes!" It's just as simple as learning your lessons in school used to be—if you will but think so. Success comes from thinking success—very largely. One can't sit with folded hands and imagine success—and attain it. But think success, act success, do the things that win success—and success is yours. And if you will follow throughout the entire season the simple methods prescribed in these columns, nothing but an upheaval of nature or some serious accident can cheat you out of the success such a course has earned.

One member is so pleased with what he has received in the way of helpful advice that he sends in a subscription paid up to 1911, and doesn't want to miss a paragraph for the next half-decade. From a basket full of complimentary words—words that cheer and hearten us more than we can say—we take a sample or two to let you see how the others are feeling about The Strawberry and its mission. One comes from Minnesota and another from the Pacific Northwest, and both are such expressions of appreciation and good will as make easier the editor's task:

Anoka, Minn.

I am a subscriber to The Strawberry, and consider it a most valuable magazine for any person engaged in strawberry culture, no matter on how large or small a scale. No one who would win success can get along without it unless he has had wide experience in the business, and even then he would be surprised to learn how much behind the times he is in this line if he will read The Strawberry. F. M. CRAIG.

Riverton, Wash.

To say that I am pleased with The Strawberry is putting it mildly. I like it in every way. The intellectual ring that it has, coupled with clearness and simplicity, will make it pleasing to all classes. The substantial quality of paper and elegance of appearance make it worthy to be filed. The matter in all departments makes it valuable generally. May it live long to be a help and blessing. REV. WALLACE BRUCE.

E. E. C., New England, N. D. It is so dry here that we have to irrigate. How late in the season should I continue to water the plants?

As you are located in a cold climate that fact must be taken into consideration.

A SENIOR-CLASS MAN E. R. MAUL, ELMER, N. J.

You should do no irrigating after September 1 unless the warm weather continues extremely late, as too much tender vegetative growth would be produced at the expense of the fruit buds.

L. A. H., Blenheim, Ont. I have a fine bed of strawberry plants that were thoroughly sprayed last summer. The plants came from a propagating bed that also was thoroughly sprayed. Should I spray the fruiting bed next season?

It will not be necessary to spray your plants again at fruiting time, as they were sprayed so thoroughly last summer. Of course, if any insect appears then you should spray at once, unless the plants are in bloom or fruit. It very seldom occurs that insects attack the plants at that time of the year.

F. M. C., Anoka, Minn. Please advise me what to raise this season for a mulch for my strawberry plants next winter. Straw is very scarce here and I will not be able to get enough to mulch my plants. 2. I am located near Minneapolis. Would you advise me to raise all late varieties? 3. How deep shall I cover my plants and when?

For mulching purposes you may grow either corn or cane. If corn is used, sow at the rate of two bushels of shelled corn to the acre. This will make it so thick that the stalks will be very spindling. If cane seed is used, sow at the rate of about one-half bushel to the acre. This will make a perfect mat of spindling growth, and the finer the stalks the better mulching will it make. As you are so near Minneapolis, you may be able to get sufficient coarse stable manure to use for mulching. This is especially valuable, as it serves two purposes—as a mulch and in supplying the fertilizing element.

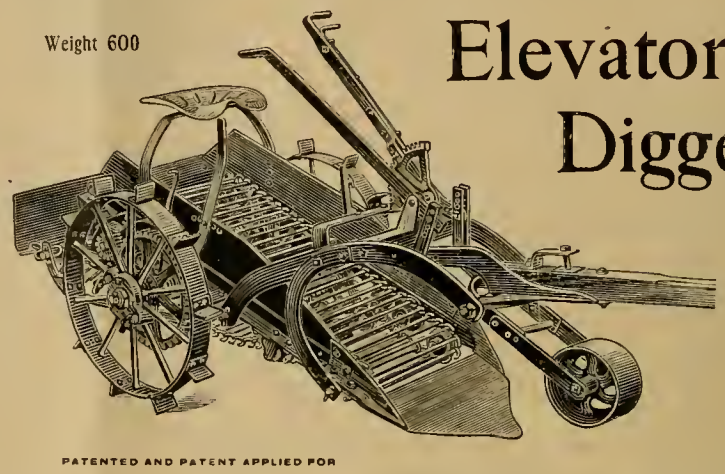
2. Minneapolis should be a splendid market and for this reason you should grow both early and late varieties unless you intend to grow them on a large scale to ship to cities farther south. This being the case, we should recommend mostly late varieties, as when these are ripe the fruit from more southerly points will all be marketed. This will make it possible for you to get much better prices for your product.

3. In mulching strawberries, put on enough covering to hide the foliage, and if sowed corn is used, it is best to have it cut and tied in bundles. Lay these bundles on top of the rows in continuous lines. After this is done cut strings that hold the bundles; this will leave the stalks lying lengthwise with the rows. Then in the spring it is an easy job to part the mulch to let the plants come up through. The best time to apply mulching is immediately after the first hard freezing.

L. A. B., Prevost, Wash. I would like to see something in The Strawberry about growing strawberries by the hill system.

There was a time when we thought the hill system the only one by which to grow fancy strawberries. But after experimenting with the single and double-hedge row systems we find that many

more quarts may be grown to the acre in these ways than by the hill system and that the berries are just as large and of as high quality. Of course, where the fruit is grown just for home use and only a small space is occupied, the rows may be placed about fifteen inches apart, setting the plants about twelve inches apart in the row. By keeping the runners off, the hills will spread until the plants come together. But we do not feel like encouraging the hill method for market purposes.



J. M., Port Jervis, N. Y. Will ground that was limed two years ago and since then has grown garden truck be suitable for strawberries next spring? Lime has always seemed to me to be detrimental to the strawberry. 2. I applied a small quantity of muriate of potash to a few rows of berries last fall and it scorched the leaves to some extent. Do you think this will injure or has injured the fruit buds? The variety is Glen Mary.

1. Your piece of land which was limed two years ago and has grown two crops of vegetables should be in excellent condition for strawberries. No better crops can be cultivated in advance of strawberries than vegetables. We agree with you that it is not good practice to use lime for strawberries, especially on clay or black soil. About twenty-five bushels of lime to the acre is all right if the soil be loose and sandy.

2. We judge from what you say about the application of potash that you put it on too liberally or did not mix it sufficiently well with the soil before permitting it to come in contact with the plants. We should not think the fruit buds will be affected by this experience.

F. G. S., Fortyfort, Pa. Enclosed please find $1, and kindly enroll me as a member of your correspondence school. I would like to ask if any of your members ever have mulched with hops from the breweries? I have for the last five years and with good results.

This is certainly something new to us in the way of mulching, but we see no reason why it would not make an ideal covering, unless it would be that the hops might affect the flavor of the fruit.

A. C., Nebraska City, Neb. I am troubled somewhat with the white grub, which cuts off my plants. What is the best way to get rid of them?

The white grub pupates from the May or June bug. They are generally found in a timothy sod, as they prefer roots of a wiry nature. The eggs sometimes are deposited in old manure piles and are transferred to the fields when the manure is spread over them. After hatching they appear not unlike a maggot, and continue to grow until about an inch and a half long and as large around as a lead pencil. They have many legs, a yellow head and a corrugated belly. They are gross feeders and quickly sever the roots from the plants. Their presence is first indicated by the wilting of the plant, as if suffering from lack of moisture. Immediately upon observing this, if you will examine the ground, you will find the grub about one-half to one inch under the surface. The only remedy is to kill the individual grub; by doing so at that time the plant may be saved. Good preventives are—first, good, clean cultural methods; second, breaking up the ground in the fall previous to the spring in which plants are to be set, which exposes them to freezing and to birds and other feeders upon insects. Hogs, chickens and turkeys will desert the corn crib in order to feed upon them.

W. F. P., Bloomington, Ind. When plants are properly mated, will it cause them to produce more berries than plants can mature into large size. 2. How do you set the plants in order to make the double-hedge row?

1. Proper mating of varieties will not make any more berries than the plants can mature into large size, provided you furnish the plants with plenty of food and moisture. Moisture may be retained by mulching the plants in the winter and leaving the mulch between the rows during the fruiting season.

2. In making the double-hedge row, each mother plant is allowed to make four runners, layering them zigzag in the row.

J. D. F., Merrimac, N. H. Last year I lost all my plants. I set out about 500. The wind blew so hard that the soil, which is sandy, was blown away from around the roots until they were exposed fully two inches, while other plants were entirely covered over by the sand. What method may I pursue to prevent the wind from injuring my plants another year?

We were several years in devising a plan for keeping the high spring winds from destroying our newly set plants, and we have discovered how to do it. Here is the prescription: Just as soon as your plants are set, follow immediately with a cultivator having medium-large shovels, and go as close to the plant as you can—about four inches—and let the shovels go down quite deeply. This will leave the ground in ridges, which will break the force of the wind as it passes over the field. Since we have followed this plan we never have lost any plants. If you will observe, you will see that the

Hallock's Two-Horse Elevator Digger

Weight 600

PATENTED AND PATENT APPLIED FOR

Potato Growers! We hear that our competitors' agents are defaming our O. K.

Well, we seek a better acquaintance, and will be pleased to enter a field contest anywhere east of the Mississippi river on condition that each and every competitor shall place $100 in the hands of the owner of the field, to be awarded to the competitor adjudged as having the highest degree of merit by judges chosen, one by each competitor, and three other men acceptable to all competitors.

WHO WILL ARRANGE FOR SUCH A CONTEST?

Guaranteed as Good as the Best

D. Y. HALLOCK & SONS, Box 842 YORK, PA.

We have a Rich Field for Agents

wind always blows the sand the worst where it is rolled the smoothest. This is because it has an unbroken sweep. We have seen it blow for days so that the men engaged in setting plants were invisible, but the method suggested always has proved effective in saving the plants. Just try it.

B. W. M., Durant, Miss. I sprayed my strawberry bed about two weeks ago with Bordeaux mixture, leaving out the Paris green. The berries are blooming quite abundantly and I want to spray again in five or six days. Will the Bordeaux mixture be the thing to use? My plants are not troubled with insects, but I wish to get rid of the blight.

Never spray your plants with anything while they are in bloom. The best time to spray the fruiting bed is just as soon as growth starts in the spring; then repeat this just before the buds open. Bordeaux mixture is the best preventive to be had for blight or fungous growths of any kind. We regret that you are compelled to grow berries on ridges. If they were grown on the level, as we grow them in the North, you could then follow our plan of turning over the bed after the fruit is picked. But the nature of your soil is such that you must grow the fruit on ridges in order to keep the water from lying on the plants, which makes it almost impossible to mow off the plants and burn over the field.

R. B. C., Berlinville, Ohio. In preparing for second crop, should one, after burning, plow the furrows away from row or onto the row from between the two rows? 2. After removing mulch preparatory to digging plants, is there any tool better than one's own hands for removing old runners, leaves, etc.?

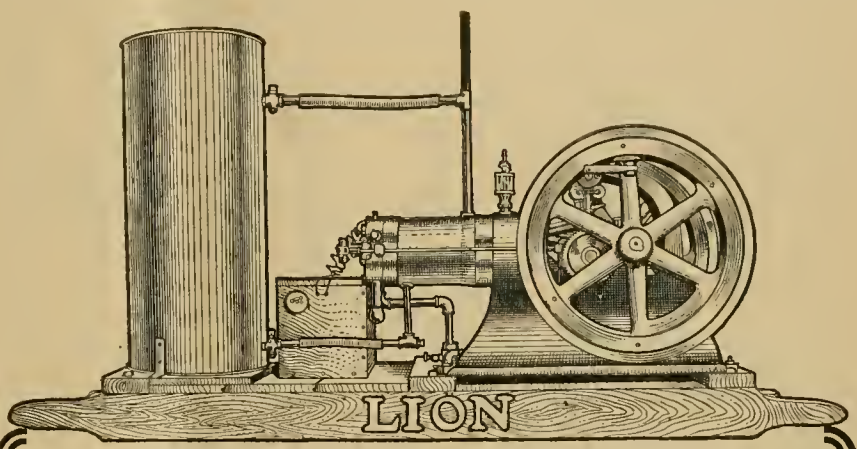
1. Throw the furrow away from the row.

2. Nothing better than the hands ever invented. A sharp knife will be found helpful in cutting the runners.

G. N. S., Rochester, N. Y. Am going to Florida to engage in the strawberry business, and desire to set out two acres this year. One acre on dark rich moist land—almost muck. The other acre on high, sandy land. Will you please arrange this two-acre experiment for me by suggesting the best varieties for each particular piece of land? 2. How far apart would you place the rows, and how far the plants in the row? 3. Shall I grow them in single or double-hedge row? 4. How many plants will it take for each acre? Please give me all the information you can so that I may secure the best results.

There is no reason why you should not succeed in raising strawberries in Florida. See article detailing the success of Joseph Bolt in this number. Your low, mucky, moist soil should be set to the latest varieties—such as Aroma, Sample, Dornan, Parker Earle, and for best results we should set them as follows: Three rows of Aroma, three Sample, three Dornan, three Parker Earle, and so on until this acre is set. Make the rows three feet and a half apart, and set the plants twenty-four inches apart in the row. We should grow Dornan and Parker Earle in single-hedge rows and Aroma and Sample in double-hedge rows. To set this acre will require about 6,500 plants.

2. On your acre of high sandy land we would suggest drought-resisting varieties, such as Texas, Crescent, Tennessee Prolific and Klondike. We should set these as follows: Three rows of Texas, three Crescent, three Tennessee Prolific, three Klondike, and so on in this order until the acre is set. Make the rows three and a half feet apart and the plants thirty



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

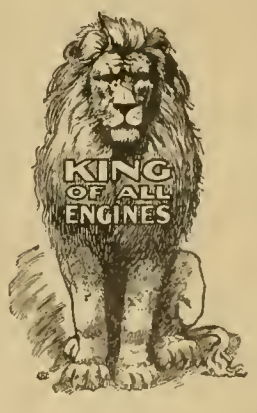
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

LYONS ENGINE COMPANY, Lyons, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in The Strawberry. Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

LYONS ENGINE COMPANY, Lyons, Michigan.

inches apart in the row, as all of these varieties make runners profusely and may set farther apart than the later varieties. It will require only a few more than 5,000 plants. These varieties should be grown in the single-hedge row.

In preparing your high sandy soil it should be rolled and pressed firmly, and the plants should be cultivated every week, keeping a perfect dust mulch for the purpose of retaining moisture. The low land will not require so much cultivation, and you may cultivate deeper here than on the sandy soil.

J. S. A., Prairie-du-Chien, Wis. I had quite a mishap the other day, and would like your advice. Last fall I put quite a heavy covering of straw over my strawberry patch. By accident it caught fire and burned over. The ground is frozen. Will it injure them? Would it be advisable to cultivate them, and continue to do so until they are in bloom or later, and then mulch them?

If the wind was blowing briskly when the mulching was burned from over your plants, it is hardly probable that the fire did any great injury, but if the fire burned slowly, it is more than likely some damage has been suffered. Examine the buds and see if they are green; if so, life is still there and the plants should be mulched again to keep the berries clean while picking. Stable manure would be effective, as the liquid manure would stimulate large foliage growth. Yes, it would be a good plan to cultivate this bed, starting the work after all danger of frost is past, and continue right through the fruiting season, excepting while the plants were in full bloom. Even then, cultivation may be done if the soil is damp enough to prevent dust from flying. If you cultivate, put the mulching along the row merely to keep the fruit clean.

Mrs. N. B., Brighton, Iowa. Should I pick the bloom off my plants the first year they are set out? 2. When picking berries is it best to leave a stem on each berry?

By all means pick the bloom off your young plants just as fast as they appear; it is an easy job and pays big. The entire fruit stem may be pinched off. This stem easily may be identified, as it grows directly from the crown. If you do not pick off the bloom, the plant will become exhausted from pollen and seed production. A new plant cannot send out its feeding roots while it is being drawn upon so heavily in the production of fruit, as to do this is to exhaust the native vitality of the plant, and by the time the fruit is ripe the plant is virtually exhausted.

2. You should always pick the berry so that the stem will be from a half-inch to an inch long. This prevents the air from getting into the calyx end of the berry, and they will hold up longer and look much better, and will bring a much better price than when picked without any stem. Even though your berries were to be sold right on the patch, we should advise this method of picking the fruit.

F. D. A., Nelson, B. C. I have some land here facing lake, sloping to the southeast. The land was cleared last year and is virgin soil. I intend to plow it at once and use fertilizer analyzing as follows: Nitrogen, 3½ per cent; potash, 11 per cent; phosphoric acid, 9 per cent. I purpose using 300 pounds to the acre; will that be proper? 2. When do I remove the young plants for next planting? 3. Please give me a scheme for keeping a patch growing year after year, say with 1,000 plants, placed in the twin double-hedge row system; land being unlimited.

1. This piece of ground should produce good crops of berries as it lies so near the lake and slopes to the southeast. This will be a great protection against frost. The fertilizer you have in mind is well proportioned for this land, as new ground requires a large percentage of potassium and phosphorus, with but a small per centage of nitrogen.

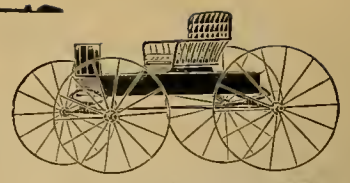
2. Never remove the young plants until you are ready to set them in the new bed. If possible, they should be taken up while entirely dormant, the roots cut back about one-third, then set out with the roots well spread and straight down in the soil.

3. There is really no way in which to take 1,000 plants and continue to propagate from them year after year unless you take a certain number of each variety of the plants and make a propagating bed. Even in this way they will run out unless you are very careful to select the best plants. It always is best to set your propagating bed from a new strain of plants. Never take plants from a fruiting bed, as in doing so you are interfering with the plants that are left to fruit, and you also are taking plants that have become pollen-exhausted.

H. C. McC., Red Bank, N. J. I have eight acres of strawberries on my farm to pick from this season. They have been heavily mulched with strong horse manure. Would you advise any further fertilizing this spring to benefit the crop? Would my berries be of finer color and firmer if I gave the bed an application of muriate of potash and wood ashes? Which of these two fertilizers would be the better?

As you have mulched your plants with stable manure, it will not be necessary to use any other fertilizers on this year's crop. Potash or wood ashes applied to the fruiting bed this spring would not benefit this year's crop because any fertilizer must be dissolved by moisture and absorbed by the soil grains before the plants can utilize it. The proper time to

How Your Money Comes Back on this Vehicle.



Because we manufacture it and know of what it is made and how it is made and all about it, we can sell it on terms never before offered. Just read—

First, we send it to you to try 30 days. If you are not satisfied, you're nothing out.

ON TRIAL

THREE FULL YEARS GUARANTEE.

But if you like it, (as you will) you buy it at just about half dealer's price—and you have exactly the same right of return and money back for three full years.

That's our guarantee. If any defect or fault appears, if it is not what it should be or what we represent it to be, call for your money.

That's our plan. It's the way we are dealing with hundreds of vehicle buyers. It's a guarantee that we toe the mark—build honestly and deal straight. It accounts for all our buyers being satisfied. Don't forget that we are factory people. We buy nothing but materials. We make everything we sell, and sell everything direct to users.

That accounts for the extraordinary low prices we make. Same low prices on all classes of vehicles. Two special bargains right now in our general catalogue. Write for free copy. for free copy.

The Progressive Vehicle Mfg. Co., Dept V. Ft. Wayne, Indiana.

The APPLE SPECIALIST

PUBLISHED MONTHLY

"The Fruit-Growers Friend"

It treats of how to SELECT, PLANT, PRUNE, SPRAY and FERTILIZE TREES; extinguish all kinds of ORCHARD PESTS; pick, pack, and market apples; how to make cider, vinegar, etc. 50 cents per year. SEND ONE DOLLAR for three years and receive a pair of 60c PRUNING SHEARS, prepaid, as a premium. Address,

The Apple Specialist, Dept. A68 Quincy, Ill.

apply the fertilizer is before the plants are set, or, after the first crop of berries is picked, you may mow off your vines and burn the bed over, then scatter your fertilizer between the rows and work it into the soil. This will be in plenty of time to benefit the succeeding season's fruit. If your soil is sandy loam and quite loose, we should prefer the wood ashes, using from forty to fifty bushels to the acre. But if your soil is a black loam or clay, the potash would serve better.

J. S. A., Jackson, Mich. I had an old run out strawberry bed which was heavily manured last summer. This has been turned under and the soil worked up in fine condition. I propose to salt it heavily this spring to kill weeds and white grubs, which troubled me seriously last season, and after the rain has washed the salt down into the soil will reset it to new plants. Will this be all right?

So far you have followed the right method in turning the old bed under, save that you should have burned the bed over before doing this, as this would have resulted in destroying many insects and fungous growths. If you apply salt heavily enough to kill weed seeds and grubs it also will kill strawberry plants, as well as affect the chemical condition of your soil for some time to come. The best way to kill weeds is by cultivating once each week. This stirs the soil and prevents the weed-seeds from germinating. Of course, if the soil is wet this cannot be done, but as soon as it becomes dry you can carry on the work. The grub is a troublesome enemy, and quite difficult to get rid of on account of its underground habit. The best preventive is to break your ground in the fall, which leaves the grub exposed to freezing and thawing and to the attacks of birds. As your ground was plowed last fall we think you need not fear for the grub this year.

I. H. S., East Akron, Ohio. What would you think of preparing the soil for strawberries like this: Use a manure spreader and scatter a light dressing of manure over young clover after the wheat is taken off, using only fine manure of course. Then the next year give it a heavier coat after the hay is taken off, using a manure spreader as before. This will give a good second growth of clover which I propose to turn under and the following spring plant to potatoes, and the following spring after the potatoes are dug, will set this field to strawberry plants. What would you think of plowing the potato patch twice—once in the fall before freezing starts, and again in the spring?

This letter makes us anxious to see the berries you will grow upon soil thus prepared. We say "amen!" to your entire program. Your first light dressing of manure will give you a big crop of hay. Your second dressing of manure and and second growth of clover will fill your soil full of humus—just what potatoes require to give a big crop, which you will be sure to get. The potatoes will take up the rankest part of the manure and will put the soil in the best possible condition for the following spring. If you break up this piece of ground after the potatoes are dug, sow about five pecks of rye to the acre, but do not harrow the ground smoothly. The rye will prevent leaching of the plant food. In the spring turn the rye completely under, then prepare the soil thoroughly before setting the plants. And when the berries are ripe don't forget to send us an invitation to come and eat shortcake with you!

One word about those potatoes: As the use of so much manure is likely to produce scab on the potatoes, let us suggest that you dip the seed potatoes in a preparation composed of two ounces of corrosive sublimate dissolved in sixteen gallons of water. Submerge the seed in this for about one hour. This preparation is rank poison; be careful that it does not get into a cut or sore of any kind.

J. W., Austintown, Ohio. Will you please advice me how you prepare your sowed-corn fodder for mulching purposes—do you shred it or put on the whole stalk? I want to know, as I have some trouble in securing enough straw for my berries. How much corn fodder do you use to the acre? 2. I have quite a lot of strawy manure every year, and last year put quite a lot on my plants. But the timothy and weed-seed grew so rank that they got the best of me. How do you manage such cases?

1. In sowing the corn use three bushels to the acre. This will make the fodder so thick that it will grow up spindling and full of blades. We run over ours until the corn is about a foot high, with weeder, thus keeping it free from weeds. In the fall cut it close to the ground with a mowing machine. This should be done before it is fully ripe, so as to retain the toughness of the fodder. Two days after cutting and when the corn is damp, pile this up in large heaps and let them remain until you are ready to spread. We do not shred, but apply the corn in the whole stalk. This material will last for two or three years as a mulch if carefully stacked after the berries are picked. It will require about four big two-horse loads to the acre. Another good way is to have the fodder cut with a corn harvester, which will bind it in bundles. Lay these bundles lengthwise in the row, continuously, and after laid cut the string and spread it out thinly enough to cover all the plants. You will readily see how easily this mulch will be parted from over the rows in the spring.

2. In using stable manure for mulching, it always is best to throw it off the wagon in small piles, then go over it and shake out the coarsest parts to put directly over the plants, scattering the decayed matter between the rows. Let this remain undisturbed until spring; then rake the decayed matter along the side of the row, which will make it thick enough to make seed-germination impossible, while the bare space between the rows may be cultivated through the entire fruiting season. Do not start the cultivator in the spring until all danger from frost is past, and avoid cultivation when the plants are in full bloom, unless the soil is moist enough to prevent any dust from flying.

Mrs. L. S. Detroit, Mich. I had a patch of strawberry plants which gave three good crops of berries; then we transplanted some runner plants from this bed and the last two summers they made some bloom, but these blossoms dried up and bore no fruit. What is the cause of the trouble?

You have taken plants from an old, run-out bed where the mother plants already had exhausted themselves in producing three crops of berries. It is impossible for such plants as these to produce a crop of berries. This only emphasizes what we so often have said, that plants to produce a crop must be taken from a new bed and be vigorous and strong.

FRUITMEN
SHOULD KEEP BEES

There will be a nice income to you from a few hives of bees, and your

Plants will Bear Better

Fruit bearing depends upon the fertilization of the flowers. Why not make fertilization certain and at the same time add to your income by keeping bees?

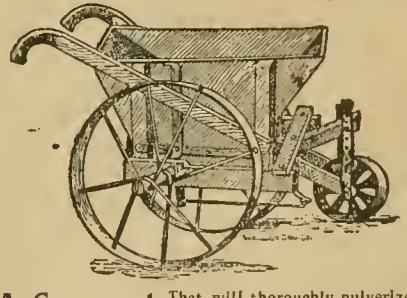
Bees are not expensive and can be made extremely profitable. Do you want to know how? Our printed matter will start you right. Many interesting booklets **free.**

"The A B C of Bee Culture"

the best text-book for bee keepers ever written, with over 500 large large pages, beautifully illustrated, for only **$1.00.** Send for free booklet.

The A. I. Root Co.,

MEDINA, - OHIO



A Compost Drill——— That will thoroughly pulverize and evenly distribute from one hundred pounds to ten tons per acre; made in two sizes by

J. M. LINDSEY, Crystal Springs, Ga.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

ROBERT S. FOUNTAIN,
Advertising Manager,
47 Plymouth Place, Chicago, Ill.

SUBSCRIPTION PRICE:
United States and Canada - - -$1.00
Foreign - - - - - - - 1.25

Application made for entry at the post office at Three Rivers, Mich., as second-class matter.

MAY, 1906

MAY comes in with smiling face to meet a smiling landscape and finds all the sons of the soil busily at work, and glad to be at work, at so congenial a task. In the strawberry world every aspect of that industry is now to be seen. For weeks the Sunny South has been shipping trainloads of strawberries to the North, where Winter's feet are laggard, for he loves to linger in the lap of Spring. In the Ohio river region berries are "coming on," and as we proceed north we find varying stages of development—development that becomes so attenuated when we reach some of the more northely states and the Dominion as to be almost invisible to the naked eye. That every man and woman in the land, and every one of our younger friends, too, who are engaged in this delightful labor shall find the season of 1906 one of large profit and pleasure, is the sincere wish of The Strawberry.

A THOUGHT-PROVOKING paper was read by Prof. N. E. Hansen, of the South Dakota Experiment Station, before the Missouri Horticultural Society. While not dealing especially with the strawberry, it indicated the broad lines on which plant-breeding is now being carried forward, and the work which even the amateur may do in aiding the production of new and worthy varieties. All of us may not be Luther Burbanks, but we may give to the world something worth while if we are sincere, intelligent and persistent. Prof. Hansen said: "We now know that we can produce fruits for different purposes, and we are practically unlimited, up to a certain point, in our operations. It is simply a question as to whether we are willing to grow enough seedlings to produce what we want. Take the matter of getting varieties which are disease-resisting, for instance. We can find varieties not subject to scab to any extent, but they may have poor quality; the thing to do is to cross the scab-proof sort with varieties of good quality; plant the seeds from these crosses, and if we grow enough of them we can know that somewhere in the list will be found a variety which is scab-proof, and at the time has good quality. Most of the seedlings will be worthless, of course—we may grow them by the millions, and all be discarded, but somewhere we will find what we want. It is simply a question of growing enough seedlings."

WE might wish that more of our friends would take an interest in spreading the gospel of good horticulture by encouraging their neighbors to become regular readers of this magazine. We can't complain of the reception given it, but we know that there are thousands of others who are looking for just what The Strawberry gives its readers—we know this because so many good souls write us of the joy they experience when the fact is called to their attention that such a publication exists. And we don't ask anybody to get out and work us for the love of the thing. We think the "laborer is worthy of his hire," and are glad to pay a generous commission on every subscription received. Won't you just see if you can't help the good work along by getting your neighbor to subscribe?

THE supreme end of life is the making of character, and, as the beauty of the sunset depends largely upon the clouds that have filled the sky, so the clouds of disappointment and failure, burdens and sorrows, cares and crosses, griefs and losses, make possible a soul beauty that were without them impossible.—P. H. Swift.

FEW features about the home beautiful deserve greater consideration than the lawn and yard surrounding it. One of the first aids to a fine lawn is a good lawn mower, and we are pleased to introduce to our readers this month the "Clipper Lawn Mower" whose very construction is a guarantee of its quality and work. The reader will observe that the cutter bar is directly in front of the wheels. The wheels travel over the ground where the grass is cut, never rolling down the standing grass as so many lawn mowers do. The small gauge wheels at the side are to gauge the height you wish to cut the grass. These features are unique. The Clipper Lawn Mower Co.'s works are located at Dixon, Ill. You should make the acquaintance of this company.

THE first care of good farmers is the best possible seed bed. That is the end sought in the Acme harrow—the perfect seed bed. With the disc, one kind of soil preparation is obtained; with the straight-tooth harrow another; with cultivator teeth, still another. The Acme harrow secures all the good points of each of these and it adds another feature just as important as any, namely, that of breaking and crushing the clods. After plowing, the whole matter of right preparation for planting seed is comprehended in crushing and pulverizing the clods, stirring the soil and leveling it up. There is ample reason for the hearty commendation that every user gives his Acme harrow. Good farmers value good work, and the Acme harrow prepares the soil most perfectly. That is why we say, look into it, if you will need a harrow this spring.

AMONG the growing institutions that make Kalamazoo famous as the center of important industrial enterprises is the Kalamazoo Carriage and Harness Manufacturing Company. This institution makes everything connected with equines and equine equipages, and makes a product it is proud to show to the world and to test by actual use. They manufacture for the great American public and will ship complete outfits, or any part of an outfit, anywhere. It is the claim of this great company that it saves its customers money every time. These goods will be shipped to you for examination and subject to your approval. A postal card addressed to the Kalamazoo Carriage and Harness Mfg. Co., Box 244, Kalamazoo, Mich., will bring you a fund of interesting information that will be of real value to you.

WE are pleased to welcome to our advertising pages the Progressive Vehicle Manufacturing Company of Ft. Wayne, Ind., a house that has won so excellent a reputation for quality of product and square dealing that it makes the unusual offer of three years' guarantee and thirty days' free trial before purchase need be completed. This company manufacturers its own goods, and finds that the most satisfactory way to deal with the consuming public is to sell direct to the man who buys for use, thus eliminating middlemen's profits. Address the Progressive Vehicle Mfg. Co., Department V, Ft. Wayne, Ind., and get their complete catalogue.

EVERYBODY who is interested in bees or bee culture unconsciously associates the name of A. I. Root with all things pertaining to that line. Mr. Root has been the means, perhaps more than any other single individual, of organizing that great and growing industry upon a practical basis, and the success he has achieved in this direction is reflected in the mammoth plant he has developed at Medina, Ohio, devoted exclusively to the manufacture of everything that will economize or make more pleasurable and profitable the production of honey. Strawberry folk ought to be interested in the bee and its product. Strawberries and bees form a combined opportunity for intelligent endeavor that is worth seizing hold upon. If you are interested and want to know more about it, that compendium of bee lore, "The A. B. C. of Bee Culture," will point the way to success. Send for the free booklet put out by the A. I. Root Co., Medina, Ohio, anyway, and mention that you saw it in The Strawberry.

IT is not surprising that the Wallace Machinery Co. management is gratified over the action of the United States Government in purchasing two of the Wallace Sprayers for use at experiment stations. Everybody likes to have Uncle Sam for a customer, and it is very certain that, with the growing popularity of the spraying machine in all horticultural lines and the rapid development of the agricultural work of the government through the department of agriculture and the colleges and experiment stations devoted to that interest—it is very certain that the company that turns out a sprayer to suit this large interest will receive many orders for its machines. This company is meeting with fine success in pleasing the general public as well, and those who are intending to purchase a sprayer of any sort will do well to write the Wallace Machinery Co., Department 50 Champaign, Ill., for "The Wallace Spray Way," a little book that will tell you all about a good many interesting things relating to methods for producing fine fruits and vegetables.

We Do Not Want Your Money

Unless we can give you your money's worth, and *we cannot do this* unless you give us a chance to prove our claim, and

Here Is What We Claim:

1st—That The Strawberry gives more practical information on everything pertaining to strawberry production and marketing than can be obtained anywhere else in the country.

2nd.—That The Strawberry makes every detail of strawberry growing so plain that none who reads can fail to understand it.

3rd.—That every issue is brim full of good things—of actual experiences and clean-cut facts, and is so interesting that you never get tired of reading it.

4th.—That the Correspondence School Department each month is worth more than the cost for a full year because here is where we answer your questions and help solve your problems.

5th.—That the paper is of extra good quality, and the print is so clear that it will not tire your eyes.

6th.—That we will never allow any but good reliable firms to use its columns for advertising purposes. In other words we refuse to introduce any firm to The Strawberry readers except those whom we can safely recommend.

Now Here Is Our Proposition:

We want every man and woman who grows strawberries, either for market or family use, to become a regular reader of The Strawberry. We want to accomplish this on a purely business basis, and if you will send us $1.00 we will enroll you for a full year and The Strawberry will be mailed to you every month, and if you are not perfectly satisfied that you are getting your money's worth, just say so, and your dollar will go back without a word. And you are to be the judge. You cannot lose on this proposition; neither can we, because you will not want your money back.

All you need to do is to send us your name and $1; we will guarantee to do the rest.

THE STRAWBERRY

118 Portage Ave. THREE RIVERS, MICH.

Low Rates to California

APRIL 25 TO MAY 5
Return Limit, July 31

JUNE 25 TO JULY 7
Return Limit, September 15

SEPTEMBER 3 TO 14
Return Limit, October 31

First-Class Round-trip Tickets to San Francisco or Los Angeles will be sold at nearly half rates on the above occasions by

THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY

Tickets will be good on THE OVERLAND LIMITED of this Company to San Francisco and Los Angeles via Omaha; THE PIONEER LIMITED via St. Paul and Minneapolis, or THE SOUTHWEST LIMITED via Kansas City.
Why not go via one of these routes and return via another?

Advance information about rates, routes and train service mailed to any address free

F. A. MILLER
General Passenger Agent
CHICAGO

R. C. JONES
Michigan Passenger Agent
32 Campius Martius DETROIT

June, 1906

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but he never did."
—HENRY WARD BEECHER

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Cash Prizes for Strawberry Folk

We Want 30,000 More
Readers for

The Strawberry

And want them right away, and in order to get them we offer the following Cash Prizes to those who will send us the largest clubs of subscribers between this date and July 20, 1906

1st Prize	for largest club received . .	$20
2d Prize	for 2d largest club received .	$15
3d Prize	for 3d largest club received .	$10
4th Prize	for 4th largest club received .	$ 5

Everybody who has canvassed for THE STRAWBERRY finds it easy work, and the great crops of strawberries grown this year makes it a simple matter to get subscribers in all districts where strawberries are raised. And even city people are subscribing for this magazine by hundreds

No reason why YOU sbould not win
the first prize

This Contest Will Close July 20, 1906

Write for full particulars to

THE STRAWBERRY, THREE RIVERS, MICHIGAN

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 6 Three Rivers, Mich., June, 1906 $1.00 a Year

STRAWBERRIES and the home beautiful! How naturally these associate themselves in the mind, and how inseparable they should be in actual practice. The home beautiful—what higher ideal can there be, considered from the viewpoint of material possessions, than the place where our lives are to be spent and our children reared to manhood and womanhood? How great an influence in training the mind to think true thoughts, in developing high moral purpose and in inculcating noble principles in the hearts of the young such a home may be is quite beyond estimate. That it is one of the most powerful of life's influences has been proved in all ages. And now, with June at hand, and all the sweet influences of nature calling to us to make the most of these opportunities presented by this delightful season of the year, we should give thought to this matter, considering it alike from the material joys such a home affords and the larger interests which have been suggested above.

EDGEWOOD FRUIT FARM, THE HOME OF J. O. STAATS, DANA, IND.

Some folk, when you speak of the home beautiful, immediately picture in their minds a magnificent castle, with high towers and vast acres spreading away in greensward and in forest. To such the idea of the home beautiful and a large expenditure of money are inseparable. Well, if this were true, there would be comparatively few beautiful homes in this world of ours, and to talk of them would be idle. But it is not true. Simplicity is a primary element of beauty; let us understand that at the outset. The most beautiful homes in the world are those which have been created by lovers of simple natural beauty; who have called to their aid grass and bush and vine and tree; a running brook; a fountain playing through a mound of boulders; an old tree trunk, covered with a mass of climbing foliage or bright with the colors of myriad flowers; a closely cropped lawn; a garden well kept, with fruit bushes skirting its edges and the varying shades of green of its different products; the strawberry patch combining the loveliest of foliage with the most roseate of fruits —these constitute the simple elements out of which may be conceived and constructed the most charming and exquisite home.

The house? Oh, yes, the house is very important, but the humblest cottage, surrounded by these lovely natural surroundings, becomes a palace of beauty, with which marble and paint and gilt and architectual grandeur may not vie in actual beauty. See what one of The Strawberry family is doing with these aids of nature to make his home a beautiful part of the landscape and a place fit for a king to dwell in—although we are not disposed to think that a king enjoys the beautiful things of this world one whit more than do the men and women and boys and girls who comprise the large and rapidly expanding Strawberry family. However, this lovely home of J. O. Staats of Dana, Ind., is typical of what may be done, and we are sure its simple beauty will appeal to every one, and all should see in it suggestions which may be followed with advantage in their own particular situation.

It has been said that the home is the most accurate index to the character of the individual. Not long ago we had a visit from Mr. Staats, and we found in the thoughtful man who has won such extraordinary success in strawberry culture that he has a large annual income from his fields and has fully realized that "comfortable" fortune of which Mr. Edgerton is to speak in our next issue—we found him to be just such a man as one expects would conceive and create such a home as is shown in the illustration on this page. Mr. Staats has had an interesting career as a strawberry specialist, and has led an interesting life as a man, and now, with life's sun westering, he finds pleasure in his work and solace and comfort and peace in his beautiful but simple home at Dana. We could wish no better fortune to the members of The Strawberry family than that each one of them may find himself, while yet so full of the spirit of youth as to enjoy such ideal surroundings, in a home so charming and so restful.

Now such a home did not make itself; nothing in this world that is worth while "just growed" as Topsy said she did. But on the other hand, the results accomplished by Mr. Staats are so largely so out of proportion to the amount of labor expended, as to encourage other friends to follow in his footsteps. One thing Mr Staats enjoys that few rural homes possess, and yet all may have it. It is a complete water system, and that little fountain you see playing on the lawn is only one of the less important features of this system. Many of our readers have asked us about the Kewanee system of water supply. It may

be of interest to them to know that it was Mr. Staats who first called our attention to the value of this system, and led us to investigate it. Mr. Staats advises us that this system not only gives him an independent water supply that furnishes his house with that essential for all modern conveniences, but supplies him as perfect fire protection as is to be had in any city in the land. He considers his investment in that system one of the most profitable he ever made.

What Mr. Staats has done in his rural home lies within the power of others to accomplish.

A formal arrangement of the garden beautiful, which adds so much to the landscape effects of the home is seen in the other illustration herewith. This is the entrance to the garden of one of Three Rivers' merchants, and suggests the combination of the architectural with the natural.

For the most part, strawberry growers are lovers of nature; they also are home makers and lovers of the home. May not all of us vie one with the other in the development of the home beautiful, remembering that it requires no big bank account to achieve desired results, but that good taste and an intelligent use of the resources at hand will accomplish it. None may measure the delight such a home affords or estimate its beneficent influence upon ourselves, upon those near and dear to us, and upon the entire community.

Read these words of wisdom and counsel from John Burroughs, the poet-naturalist. None who reads but knows they are the simple truth, and that real happiness and the joy of life come to us through faithful adherence to the simpler ways of living. He says:

"I am bound to praise the simple life, because I have lived it and found it good. When I depart from it evil results follow. I love a small house, plain clothes, simple living. Many persons know the luxury of a skin bath—a plunge in the pool or the wave unhampered by clothing. That is the simple life—direct and immediate contact with things, life with the false wrappings torn away—the fine house, the fine equipage, the expensive habits, all cut off. How free one feels, how good the elements taste, how close one gets to them, how they fit one's body and one's soul! To see the fire that warms you, or better yet, to cut the wood that feeds the fire that warms you; to see the spring where the water bubbles up that slakes your thirst, and to dip your pail into it; to see the beams that are the stay of your four walls, and the timbers that uphold the roof that shelters you; to be in direct and personal contact with the sources of your material life; to want no extras, no shields; to find the universal elements enough; to find the air and the water exhilarating; to be refreshed by a morning walk, or an evening saunter; to find a quest of wild berries more satisfying than a gift of tropic fruit; to be thrilled by the stars at night; to be elated over a bird's nest, or over a wild flower in spring—these are some of the rewards of the simple life."

ENTRANCE TO THE GARDEN OF C. G. DEAL, THREE RIVERS, MICH.

TEXAS is glad to have "something that the cotton-boll weevil won't eat." For delicious as is the strawberry, that fastidious and voracious insect has not as yet cultivated his taste to the point where he can find pleasure in the fruit. The result is that down in the land of King Cotton, where ruination once stared the farmers in the face, disaster has been averted by turning the cotton fields into strawberry gardens. More than that, the profits from one acre of strawberries frequently has exceeded that received from fifty acres of cotton. Places in eastern Texas, like Tyler and Jacksonville, that were practically dead and impoverished a few years ago, now are prosperous financial and industrial centers, all because fruit and truck have succeeded to cotton, bringing in a steady stream of cash for many months of the year. It is one of the phenomenal things in the life of the South that the fruit and truck industry has all but done away with the old system of credit that kept the common people there in poverty.

Practical Experience in Strawberry Culture

By A. D. Stevens

I HAVE studied the nature of strawberries for at least twenty years and find that each variety needs to be studied very closely and then be treated to suit its nature if success is to be realized. For instance, if plants are deficient in foliage but strong in yield of berries, great care should be taken to increase the foliage and to preserve a balanced plant as between fruit and foliage. This kind should be cultivated much later in the fall, which will overcome the defect to a large degree.

If plants show signs of being weak at this time of the season their first runners should be cut off to give them time to become more firmly established for the work they are about to perform in producing new plants.

I have been working on seedling plants for sixteen years and find a great field here for experimentation. I don't allow any plants to go on the market until it has been worked on all kinds of soil and been thoroughly tested and proved to be of high quality and perfectly balanced in all respects. After I find a seedling plant that shows a certain number of good qualities I then breed them up by bud selection.

For growing a fine and large crop of berries labor and manure should not be used too sparingly. The good book tells us that it rains on the just and unjust alike, yet we have our part to perform or nature cannot give us a large crop.

I am growing strawberries on newly cleared land at present and find it less difficult to keep down weeds than it is on old land. I burn the brush and cut-harrow the land first, then take a five-tooth cultivator and pulverize the soil thoroughly, after which I harrow with a spike-tooth harrow, and then let it lie through the winter. In the spring I prepare the soil for setting the plants by this method. I find that berries do better than they will when one plows the top soil down and turns the wild yellow soil up.

I have a T-shaped steel which I insert

in a shovel handle that I find is a great labor-saving tool to cut the runners after they have been layered and are thick enough set. This can easily be sharpened on an ordinary grind stone.

In cultivating the bed after it has been picked, I find that to mow the vines off, then burn them and narrow the rows to about twelve inches is the better way. I use an ordinary five-tooth cultivator, taking the wide blades off and putting on about one inch or one and one-fourth inch blades. Spread the cultivator so it will cut the soil about every six inches to the depth of about two inches, then when the plants start a new growth the work with the hoe will not be much to thin the plants to the proper number.

We have a label which is placed on all crates of fine berries that has proved to be a great advantage in securing a good trade for our berries. It is a guarantee for high color, fine flavor, and for honestly packed fruit.

Bridgeton. N. J.

SOME NORTHERN MICHIGAN STRAWBERRIES

STRAWBERRIES should be packed immediately after they are picked, care being taken to have them the same all through, not allowing any larger berries on top than are in the bottom. As soon as rhey are oacked place carerully in the crate and if to be shipped the lids should be nailed on at once and marked to the firm which is to receive it. Mark on the end of each crate the grade it contains, whether fancy or medium. An account should be opened with each dealer, charging him with the number of cases of both fancy and medium berries shipped each day; then when he remits you easily can compare his report of sales with your books, and should there be an error it will easily be located and the dealer will gladly rectify the mistake. It doesn't pay to do business without a set of books.

EVERYBODY ought to have all the strawberries he wants. If he does not care to grow them, he ought to be in some business so that he can afford to buy them quart after quart, morning, noon and night. Not only because they give enjoyment, but because they are the cheapest, best and most natural medicine to tone up the system that has ever been invented. They are both food and drink. The man who cannot afford to give up his beer, tea and coffee, yes, and tobacco, too, when strawberries are plenty and cheap, is a man to be pitied.—A. I. Root.

Strawberries In Northern Michigan

WE have called attention frequently to the large opportunities that are opening up to strawberry growers in the Northern states. The demand of our great metropolitan centers for fresh fruit is practically unlimited, and the man who can supply the delicious strawberry at any season of the year never need want for an opportunity to develop his energies. There are millions of acres in northern Michigan and Wisconsin which lend themselves naturally to the development of great enterprises along this line, and many a poor man who today is working for a low wage, or finding it quite impossible to secure steady employment at any wage, would find in either of these states chances to build up an independent business and a productive home that, even with his limited resources, he might take advantage of.

We are showing on this page an illustration of what may be done in northern Michigan in the way of growing beautiful strawberries. This illustration is sent us courteously by the publisher of our esteemed contemporary, The Northwestern Farmer, published at Menominee, Michigan. You will not find anything finer grown anywhere and you may imagine what it would mean if the enterprising growers of these northerly states should send several carloads of such fruit into Chicago, Milwaukee, Minneapolis and St. Paul, sometime about the 10th of July!

We cannot too seriously urge upon our Northern friends the consideration of this subject, and that they develop this extraordinary opportunity. Late varieties, given ideal cultivation, ought to bring more money per acre than that received by our friends of the South. The picture indeed is a suggestive one, considered from this point of view.

ONE feature of the strawberry business that is most favorable to its larger development is the ability of this popular fruit to adapt itself to almost any environment of soil and climate. Away up on the sides of the Alps, where snow lingers until the summer suns are at their hottest, the strawberry thrives and yields generous crops of delicious sweetness. And when we go down to tropical Cuba we find that there the strawberry grows and thrives. It grows and prospers in the sandiest soils and yields large crops in the heaviest of clay. It abounds where the rainfall is excessive and manages to maintain existence on the drought line. Under these circumstances, it must be clear to all that where proper cultural methods are given, where moisture is conserved in the soil, or on the other hand, where the low grounds are thoroughly under-drained—where these proper conditions are furnished to strong and vigorous plants, success is bound to follow. One correspondent recently called attention of The Strawberry to the interesting fact that vast fortunes may not be made in strawberry culture, but that a comfortable fortune is insured to the man who grows them successfully. This is an ideal life. "Give me neither poverty nor riches" was the prayer of the wise Hebrew of old. It is the true philosophy of life, and he who eomes in daily touch with nature and finds in the tilling of the soil and the cultivatioh of its crops a source of support is indeed most fortuuate, and should consider himself blest above all others.

A DOCTOR in Buffalo declares that strawberries and cream and shortcake made from the fruit are responsible for the summer increase of insanity. He must take his "berries" in liquid form.

BURNING OVER THE STRAWBERRY FIELD FOR THE SECOND CROP

Some of our friends are skeptical about the burning over of the field, fearful that it may be done only with danger to the plants—

Preparing the Bed for the Second Crop

JUNE is the month of realization to the strawberry growers of the more northerly latitudes. All the epicurean dreams of strawberries and cream, of strawberry shortcake, and all the other delicate and delicious compounds into which this rare fruit enters, is in this month brought to complete and satisfactory realization. Now that the fast express trains connect the North and the South so closely that but a few hours of time are spent in bringing the fruit from the Gulf to the northerly lakes, the strawberry has become an every-day affair ere this, but this fact does not lessen by one jot the delight we experience when the home-grown article comes to grace the table and lend its own indescribable charm to the meal of the rich and poor alike. That's a fine quality of the strawberry—every son of man can have them because they are as plentiful and as inexpensive as they are delicious. And so the months of preparation and anticipation are fully compensated in the joys of actual realization.

June also is the month when the strawberry grower must take a long look ahead, for it is the time in many localities when he must consider what is to be done in the way of preparing his bed for the second crop. Just as soon as the last picking of berries is made, the entire field should be mowed over. If grown on a large scale, the best way is to take a common two-horse mowing machine, allowing the horses to walk astride the row, mowing off one row at a time. If berries are grown in a small way, a common scythe or sickle may be used. There is little danger of mowing the vines too close to the crown, as the crown, which is the most vital part of the plant, is well protected by the surface of the soil. Before mowing the plants off, the growers should watch weather conditions with an aim to get this work done while there is not much danger of a heavy rain before the field is burned over. As a rule, thirty-six to forty-eight hours will thoroughly dry the vines after they have been mowed off so they will burn very readily. Should a heavy rain come after the mowing has been done and prevent the burning over for several days, a new growth would start and then it would be dangerous to burn the plants. If a day is selected when the wind is blowing quite briskly, there will be little if any danger of the fire doing any damage to the plants.

In setting the patch on fire, the grower should go to the side from which the wind is coming and set the entire bed on fire just as quickly as it can be done. We often have burned over four or five acres and the entire time required to do so did not exceed fifteen minutes. If the patch of plants is close to an orchard or fence, the first thing to do is to go to the opposite side from which you intend to burn the bed and set the last row on fire. This is what we call back-firing. This would make it burn slowly near the fence or orchard, thus preventing any danger from injury in that direction. Then when a few rows are burned in this manner, the entire bed should be set afire on the side from which the wind is coming as above stated. If the mulching has been put on quite heavily, it is best either to remove part of the mulching, or loosen it up. Where a large acreage is grown, the loosening can be done with a hay tedder. This will stir the straw up, causing it to lie very loosely, and the fire will consume it without any danger to the plants. If the patch be small, the loosening can be done with a fork.

After the burning has been completed, the next process is to narrow down the rows. This can be done by taking a common breaking-plow or bar-shear, and throw a furrow from each side of the row into the center. When this is done, there will be a ridge left directly between the rows, which can be leveled down or thrown back to place by the use of a one-horse five-tooth cultivator. After the cultivator has been run through, a reversible harrow, with the teeth thrown slightly backwards, drawn across the rows, will level it nicely. It also will draw the fine soil over the crowns and bury them completely. This is very important, because after the plants have fruited a crop the roots are entirely exhausted and have become wiry and lifeless. By covering the crowns the new root system will start rapidly. This new root system is established just above the old roots and beneath the crowns of the plants. If the soil is not thrown over the crowns of the plants, they will grow meagerly, and will send out no runners. The leaves will be small and the plants almost useless, but where the crowns are covered the plants will come up through the soil in a few days, and in a short time the foliage will have a bright, glossy appearance and the plants will look as vigorous and healthy as a newly set bed. They also will send out very strong vigorous runners.

Just as soon as the plants come up through the soil sufficiently to detect the good plants from the weaker ones, they should be gone over with a hoe, sorting out all the weak plants and leaving nothing but strong healthy ones which are to act as mother plants. These mother plants should be left about sixteen inches apart, and each one of them allowed to make four or eight runners, according to the system you intend to follow. These runners should be layered the same as those which come from a newly set bed.

THE SAME FIELD EXACTLY SIX WEEKS AFTER IT WAS BURNED OVER

—But this illustration is graphic proof of the fact that the burning-over process clears the way for better things in the life of the plant

In cultivating this bed for the second crop, the same plan should be followed as in cultivating the young plants. Cultivation and hoeing should be continued until early fall. Then keep the runners in check and the weeds and grass under control, and your second crop will be assured.

Handling a bed in an orchard requires special care, and it is dangerous to burn the bed over. One of the best crops of berries we ever raised was grown in a young peach orchard, and after the crop of berries was picked, it being too hazardous to the trees to burn the bed over, the vines were mowed off and the litter raked up and hauled away. Then the rows were narrowed down and the same plan followed as in the bed which had been burned over. Whether the bed is burned over or not, it is always best to mow the old foliage off before trying to prepare it for the second crop.

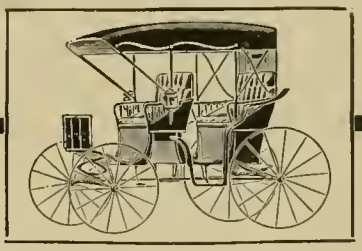
Many readers ask us as to the number of crops that profitably may be grown from the same bed of plants. It seldom pays to grow more than two. Just as soon as the second crop is picked, the bed should be mowed over and the plants burned, as in preparing the bed for the second crop. The burning is done here for the purpose of destroying all fungous spores and insects. After burning, this bed should be broken up and thoroughly prepared, then set to some leguminous crop like cow peas or vetch. As a precaution against attacks of insects and fungi, it always is best to manure this bed and plant some other crop, such as potatoes or corn, and then, after that crop has been harvested, the ground will be in ideal condition for strawberries again. Insects and fungi always are more troublesome where fields have been continuously grown to strawberries without rotation. There is no better preventive for these troubles than the rotation of crops. The renewing of the soil, the "freshening up" it receives from such treatment, is appreciated by no other plant more highly, nor will any other respond more generously with bumper crops.

The Propagating Bed

The widespread interest among strawberry growers in the subject of the propagating bed is reflected in the large number of letters received by The Strawberry during the past few weeks, and the following instructions will answer innumerable questions, directly and indirectly asked concerning this important and interesting work. We trust they may prove of interest and value to every reader of this magazine.

The first thing to be considered is the thorough preparation of the soil, and this should be done at least one year in advance of setting the plants. First, give the ground a good coating of stable manure. This should be well incorporated with the soil, and as soon as all danger of frost is over, six pecks of cow peas should be sown to each acre. These in turn should be plowed under and worked into the soil just as soon as they become thoroughly ripened or woody. If the peas ripen in time so that they may be turned under and the field sowed to rye (five pecks of rye to the acre will be enough) this will prevent the surface of the soil from puddling during heavy rains in the winter. It also will hold the plant food in reserve for the use of plants the following spring.

In the spring this ground should be replowed and the cow peas and manure again thoroughly mixed up with the soil before plants are set. This will fill the soil so full of humus that it will hold large quantities of water. It also will make it possible for the plants to develop a large root system, which is essential. The roots and crown are requisite to a good plant, and these may be attained only where soil conditions are



Vehicle Bargains

Not mail order house bargains. We manufacture everything we sell from the raw material and sell direct to you from factory

ON 30 DAYS FREE TRIAL

We cut out all profits of agents and local dealers and guarantee to give you your money back any time within three years if your vehicle fails to stand the test. We further guarantee that the vehicle you get from us is the equal of any you can buy from a local dealer at double our price. A couple special jobs right now at extremely low prices. Write today for free complete vehicle catalogue.

The Progressive Vehicle Mfg. Co.,
Dept. V. Ft. Wayne, Indiana.

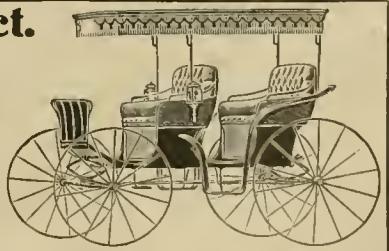
33 Years Selling Direct.

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.

We are the Largest Manufacturers in the World

selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large free catalogue.

No. 647. Top Buggy. Price complete, $40.00. As good as sells for $25. more



No. 331. Canopy Top Surrey. Price complete, $65.50. As good as sells for $95. more.

ELKHART CARRIAGE & HARNESS MFG. CO.,
ELKHART, INDIANA.

ideal. The way to get a well-developed crown is by layering the runners, and this is done by placing soil on the runner wire just back of the node. This soil will hold the runner wire in place, preventing it from being moved about by the wind. It also will hold moisture which will encourage the roots to start more rapidly, and will also encourage them to start directly from the crown, while if the soil is not placed on the runner wire, the wind will keep the young plant moving back and forth and when it does take hold of the soil it is almost sure to send roots from one side of the crown only, which makes a one-sided plant.

The number of roots that start from the crown is what determines the value of a plant, and the more roots the plant makes, the more chances it will have when reset. By filling the soil with humus, these roots that start from the crown will send out a large number of laterals which will feed the plant abundantly, causing the crown to develop not only large but strong plants of high fruit producing power.

Another advantage of layering the runner is the fact that it encourages roots to start immediately, thus enabling the runner plant to draw part of its existence from the soil which lessens the strain upon the mother plant. Just as soon as these roots take hold of the soil they begin absorbing the moisture and plant food from the soil grains. This, with the aid of the mother plant, keeps the young runner plant in a vigorous condition. When the roots of the young plant get well established in the soil, nature provides a way which weans the young plant from the mother plant as is done in animal life. At this time the young plant will send out runner plants, becoming itself a mother plant, and so on until several other runner plants will be made from it. The mother plant also is kept in a strong healthy condition, which enables it to start more runner wires, which in turn should be treated in the same manner as the first runner we have mentioned, that is, place soil back of the node.

These runners should be so layered that they will not crowd each other. This is done by spreading them in all directions. If they grow closely together the roots of one plant interfere with others, which prevents all of the plants from developing large root and crown systems.

In marking the rows for a propagating bed, they should be four feet apart, and the distance the plants should be set apart in the row will depend entirely upon the runner capacity of the variety. Such varieties as Excelsior, August Luther, Michel's Early, Bederwood, Warfield, Tennessee and Senator Dunlap make large numbers of runners, and these should be set at least thirty-six inches apart in the row. We often set them as much as four feet apart, especially if we get the plants set real early in the season. But if it is late before the plants can be set, then they should be set somewhat closer because they will not make so many runners.

The plants in the propagating bed should be cultivated and hoed more frequently than in the fruiting bed. Not a weed should be allowed to grow. The plants should be given every possible advantage and they should have full access to all the moisture the soil contains. After every rain, just as soon as the soil will crumble, the cultivator should be started; likewise the hoes. A sharp-pointed hoe is best. This can be worked in between the plants, thus breaking every particle of the crust which is bound to form as soon as the sun shines on the soil after the rain. Breaking up the soil holds the moisture which has been placed there by the rain. It also opens up the pores of the soil, furnishing air to the bacterial germs, causing them to work more earnestly. The bacterial germs work up the plant food so the moisture can dissolve it into available form for the plants' use. The humus in the soil will also increase the bacterial germs and make them more active. A propagating bed should be cultivated until quite late in the fall. In fact, the cultivation and hoeing should be continued until heavy frosts come.

Runners which form after October 1, should be clipped off with a runner cutter or with hoes, as a runner which starts at so late a date seldom will have time to perfect itself. These are what we call tip-runners or alley-plants, and this is why we discourage the practice of taking plants from a fruiting bed. When this is done, the alley-plants only are used so as to leave the larger plants for fruiting purposes, and where this practice is continued, it is only a short time until the variety will be much changed in its characteristics. This is what a great many growers call running out. We call it poor management.

After cultivation has been discontinued in the propagating bed—and the time this should be done depends entirely upon the season—the bed should be quite heavily mulched immediately after the first hard frost. This will hold the plants entirely dormant until setting time the following spring, and the mulch should remain on until it is absolutely necessary to remove it. The way to tell when the mulch should be removed is to closely watch the plants from under the mulch, and if they show any signs of bleaching, then it shows that the soil has warmed up from under the mulching, forcing the plant to start into a new growth; then the mulching should be removed, lest the plants bleach and become tender.

However, it always is best to take up the plants and set them out while they are in a perfectly dormant condition, although it sometimes happens that this cannot be done. If the plants must remain in the propagating bed until the buds start or the bloom opens, be sure and remove these buds and bloom before the plants are reset. If the plants are entirely dormant when transferring to their permanent place, the entire foliage can be removed and the roots can also be pruned back one-half.

THE BEST AND CHEAPEST. UNIVERSALLY ADMIRED.

NATIONAL BERRY BOX

IN ALL STYLES

The IDEAL IN REALITY

Patented Nov. 17. 1903.

NO skinned fruit; no nailing; no mildew; no warping; no splitting; no waste; no loss. A fruit preserver, folded in an instant. A clean, glossy, substantial package, aiding in the sale of fruits. Made from **Smooth Paper Stock,** coated on both sides with **odorless** and **tasteless best parafine wax.**

First Year's Results:
Sales in 29 States and communication with 44 States of the Union.

LESLIE STYLE GREATLY IMPROVED—double reinforced on bottom edge, which gives also EXTRA support for bottom on all sides. Folded-up sample sent on receipt of ten cents

WRITE FOR CIRCULARS AND PRICE-LIST AND READ UNSOLICITED TESTIMONIALS.

NATIONAL PAPER BOX CO.
KANSAS CITY, MISSOURI.

PICKING STRAWBERRIES ON THE FARM OF H. R. WAYMAN, PRINCETON, MERCER COUNTY, MISSOURI

Shipping Strawberries by Thousands of Carloads

BECAUSE of the vast number of berries shipped from that section of North Carolina of which the city of Wilmington is the center, it has become known as the "Nation's Strawberry Patch." And a marvelous thing it is that from so small an area, comparatively, comes such a supply of the delicious fruit. It is said that ten thousand people are directly interested in the business of producing and shipping strawberries in that section, and the total output for the season reached more than 3,000 carloads. Perhaps we may in no better way convey to our readers an idea of the magnitude of this interest than to quote the account given by the Wilmington Messenger of May 6 of the way in which the work went forward for the week ended May 5, as follows:

"Yesterday was the biggest day for the shipment of strawberries out of this section ever known. Two hundred and twenty-six cars are reported by the Armour people for yesterday. The week has also been a record-breaker, 1,168 cars of berries having gone forward.

"It was said last night at the offices of the Armour line, in this city, that the shipment was the greatest ever known in the history of the berry industry. It is said that the high mark of the season has been reached and that there will be a gradual dropping off in the number of cars from now on to the end of the season.

"The record of shipments for each day last week was as follows: Monday, 184 cars; Tuesday, 193; Wednesday, 185; Thursday, 182; Friday, 189; Saturday, 226. These with ten cars which have gone out from the short cut section, between Florence and Wilson, bring the total up to 1,168 cars.

"The report of H. T. Bauman, business agent of the Eastern Carolina Fruit and Truck Growers Association, of the number of cars to pass through South Rocky Mount was 190, distributed as follows: New York 42, Newark 8, Philadelphia 18, Boston 29, Providence 8, Cleveland 5, Buffalo 11, Pittsburg 13, Albany 5, Washington, Scranton, 4 each; Baltimore, Worcester, Bridgeport, Harrisburg, Columbus, Schenectady, Syracuse, Montreal, 2 each; Springfield 3; Brooklyn, Keen, Fall River, Reading, Wilkesbarre, Logansport, Erie, Burlington, Elmira, Canton, Portland, New Britain, New Haven, Bingampton, Rochester, Troy, Norristown, Hartford, Hornellsville, Amsterdam, New Bedford, Utica, Hazelton, Pittsfield, 1 each.

"To appreciate the magnitude of the berry business one has to go through the great berry belt and see the large fields where hundreds of people are at work picking the luscious fruit. And when it is considered that the enormous business is handled in the period of only about three weeks it can readily be seen how enormous is the task. If the crop gets much larger facilities for taking care of it will have to be increased enormously. One of the greatest troubles seems to be that of getting cars iced.

"An enormous amount of money is now pouring into eastern Carolina and the banks located in the different towns in the trucking belt are kept busy day and night. Saturday is a big day for paying off and yesterday morning a Wilmington banker was seen going to a nearby town on an early morning train with a large bag of money, and ere this article is read it will be distributed among hundreds of people who are picking strawberries in the vicinity."

In its issue of May 12 the same journal, in reporting the work of the preceding week, said:

"With shipments still going forward at the rate of 100 cars and upwards per day, the strawberry crop has already reached about the proportions it was estimated at earlier in the season, and the end is not yet. The shipments for the week ended last night were 902 refrigerator cars and express shipments large enough to run the total up again to more than a thousand cars. The shipments the preceding week were 1,013 cars, according to the official bulletins sent out by Business Agent Bauman, so that it is seen that the season's shipments are already well up towards 2,500 cars. Shipments will continue at least a week or more longer and a grand total of more than 3,000 cars may be expected as the crop for 1906."

On Wednesday, May 9, shipments from the Wilmington district reached the tremendous total of 212 cars—without doubt second only to the world's record breaker for a single day's business out of one strawberry district.

But vast as is the business done by the Atlantic Coast and Southern Railway

lines in the Atlantic seaboard region. that section by no means has a monopoly upon the strawberry business of the Southern states. And this season has more than realized the high expectations of our friends in Louisiana, Alabama, Mississippi, Arkansas, Tennessee, and others of the middle Southern states, where immense crops of berries of extra-fine quality have been and are being shipped to the voracious North. The gloomy predictions of the early season, when it was feared that frosts and heavy rains had damaged the crop to a considerable degree have not been realized, and the magnitude of the business from these states has been little short of phenomenal.

An interesting incident, which brings the strawberry crop of Louisiana and the California earthquake into what may be termed pleasant juxtarelations, was the selling of the fruit for the benefit of the San Francisco sufferers. In one day $921.50 was realized from miscellaneous fruit sales and the New Orleans States thus describes what was to take place the next: "Luscious strawberries that will make your mouth water will be on sale Friday from 7 o'clock in the morning till they are all sold. Strawberries with tint as red as the lips of the fair Southern maids who will sell them for the benefit of the Frisco sufferers."

Berries that serve thus to alleviate the sufferings of our fellows must indeed be doubly sweet.

Not only has the South enjoyed a fine season with its strawberries, but from all over the Pacific Coast country come reports of unusual success in this direction. Out in the Hood River region of Oregon, the results have been something marvelous in the way of yield and fine fruit, and Idaho, Washington and California join in the reports of the most encouraging nature. A dispatch under date of May 5 reports that William H. Pastorious residing near Findley, Washington, brought in the first full crate of strawberries on the 4th of May. This crate was sold for $25 as a mark of popular interest in the receipt of the initial crate for the season.

The Columbia Commission Co. of Kennewick, Washington, reports that 10,000 crates have been grown in that section this season as compared with 7,000 for 1905, and this notwithstanding the fact that the cold snap of March cut down the total yield considerably. The first quart of strawberries delivered into Kennewick brought $1.50.

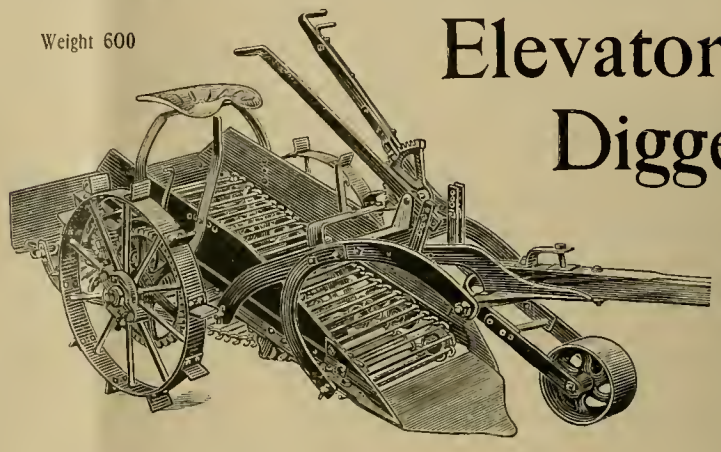
Perhaps nothing better could illustrate the ubiquitous nature of the strawberry plant and the ease with which it adapts itself to every climate and soil, than the illustrations which we show this month of strawberries growing from the North Pacific country to Cuba, and the universal note of prosperity that comes to us from every section is of the most encouraging nature.

LOADING CARS ON THE ATLANTIC COAST LINE RAILWAY IN NATIONAL STRAWBERRY PATCH

WHENEVER the railway managers prick up their ears and give particular attention to any industry, it is a pretty good sign that the business in question is becoming of large importance. Railways are big themselves, and while, in the nature of the case, a multitude of little things make up the sum total of their annual business, the fact remains that to receive particular attention at their hands a commercial or industrial or agricultural interest must be of size. We have referred to the fact that the Atlantic Coast Line and the Southern railways in the seaboard South were giving special attention this year to the strawberry business of that section. We are advised that the Queen and Crescent route is running special trains from the Tennessee strawberry fields to Cincinnati on passenger-schedule time. One leaves Chattanooga at 5:30 each evening and arrives at Cincinnati at 5 the next morning; the other leaves Chattanooga at 10:40 p. m., and arrives at Cincinnati at 8:15 a. m.

Hallock's Two-Horse Elevator Digger

Weight 600



PATENTED AND PATENT APPLIED FOR

Potato Growers! We hear that our competitors' agents are defaming our O. K.

Well, we seek a better acquaintance, and will be pleased to enter a field contest anywhere east of the Mississippi river on condition that each and every competitor shall place $100 in the hands of the owner of the field, to be awarded to the competitor adjudged as having the highest degree of merit by judges chosen, one by each competitor, and three other men acceptable to all competitors.

WHO WILL ARRANGE FOR SUCH A CONTEST?

Guaranteed as Good as the Best

D. Y. HALLOCK & SONS, Box 842 **YORK, PA.**

We have a Rich Field for Agents

Courtesy of The Cuba Review and Bulletin, New York

STRAWBERRIES IN CUBA THE FIELD OF W. P. LADD, SANTIAGO DE LAS VEGAS.

This field consists of three-quarters of an acre. It comes into bearing before Christmas, and continues to yield for six months, giving its owner a net annual profit of $800

This simple statement reflects the magnitude of the industry that thus can command such accommodation.

Selection and Preparation of the Field

By J. B. Graves

I HAVE been a grower of fruit for more than a dozen years. On my fruit farm I have forty-five acres of growing strawberries. They are my favorite fruit. I take more delight in their culture than in that of any other. They are the easiest and quickest grown, the most delicious and the most profitable. Then they are as sure to produce a crop as corn. This cannot be said of apples, peaches, pears, plums, cherries, grapes, or any of the other small fruits.

In writing this article at the request of The Strawberry I shall limit myself to a brief treatment of the selection and preparation of the field. The commercial field should be selected with thoughtful care. For best results it should be rich. Land that would yield a good crop of corn or potatoes or cotton will produce a good crop of strawberries. For comfort in working it should be free from rocks and roots, yet in this locality large crops are grown on new ground full of rocks and stumps. To plow and pudge and pick and pack in such land is to put to the proof the practicality of one's piety. For early berries choose a south or southwest exposure; for late berries choose a north or northeast. Land is easiest cultivated if it is nearly level or gently rolling. However, great crops are sometimes grown on steep hillsides. If the land be too level it will not drain well, and at times both the plants and the berries will be damaged by standing water. If it be too steep it will be difficult to cultivate, and heavy rains will wash away its fertility and form numerous gullies. The ideal site is rolling enough to drain well and furnish a good exposure, and not enough to wash badly.

The field should be in course of preparation two or three years, growing such crops as will rejuvenate the land and exterminate weeds and grass. For example I sowed a field to clover, and kept it in clover three years. In the spring of the fourth year I turned under the sod and planted potatoes. At the last cultivation I drilled cowpeas between the rows, harvesting the cowpeas for hay. When the potatoes were dug I turned under the cowpea stubble and potato vines, and left in the rough until spring. This spring I have planted it to strawberries and found it in fine condition. Another field I sowed to timothy, using the field two years as pasture for horses and cows. In the fall and winter I hauled manure from the barn and cowshed and distributed over this pasture as far as it would go. This spring I sowed it to oats and Canadian field peas mixed. These I will harvest for hay.

The Fertilizer Question. Every farmer wants to know about fertilizing. Why not send for big new Free catalogue of the
American Manure Spreader
It tells about the best Spreader, made in 9 styles and 5 sizes—sold On Trial and On Time. Fairest selling plan, exclusively our own. With catalog goes booklet, "The Value, Care and Application of Manure." Write now.
American Harrow Co., Detroit, Mich.

PAINT WITHOUT OIL

A remarkable discovery that cuts down the cost of painting 75 per cent. It is the cement principle applied to paint, and produces a fireproof, weatherproof, sunproof and sanitary paint which spreads, looks and wears like oil paint, and costs ¼ as much. Write to **A. L. RICE, Mfgr., 598 North St., Adams, N. Y.** He will send you **free sample**, color card and price delivered. You can save a good many dollars. Write today.

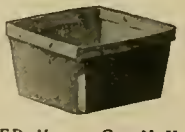
Fruit Packages of all Kinds

Before ordering your supplies write for our **Descriptive Catalogue and Price List.**

BERLIN FRUIT BOX CO.,
Erie Co. Berlin Heights, Ohio.

Webster Basket Co.,

Manufacturers of the
BEST WIRE-SEWED BERRY BASKET ON THE MARKET



Get our Catalogue and Price before ordering elsewhere
WEBSTER BASKET CO.,
Box 40. WEBSTER, Monroe Co., N. Y.

BEEBE'S SINGLE COMB WHITE LEGHORNS ARE THE BEST HEAVY TESTED LAYERS
EGGS
15, $1.00; 20, $3.00; 100, $6.00.
H. C. Beebe, - Route 5, - Canton, Illinois.

CAPABLE WOMEN ONLY—Opportunity for big money and valuable, permanent positions. A lady's toilet article more necessary than talcum powder. Write for the Sanadora Proposition to Women, offering an opportunity to earn at least $291 and become State Agent for Sanadora. Winifred Darrow Co., Three Rivers, Mich.

25 VARIETIES of Poultry, Eggs and Fowls for sale on short notice. Send 4 cents for catalogue which will give you prices and descriptions of best fowls and eggs. W. SEIDEL, Box S, Elroy, Ill. (46)

Furnace On Trial. $39 up. $5 down. Pipes etc. only $3 a room. Tools free. Send for free book, showing how easy it is. Schafer Furnace Co., Box C, Youngstown, O.

MICHIGAN FARMS Good improved farms, splendid soil, fine climate, selling cheap. Write for "list I". BENHAM & WILCOX, Hastings, Michigan.

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and
MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

Chas. S. Chase, Agent, 622 Chemical Bldg., St. Louis, Mo.
M. A. Hays, Agent 225 Dearborn St. Chicago, Ill.

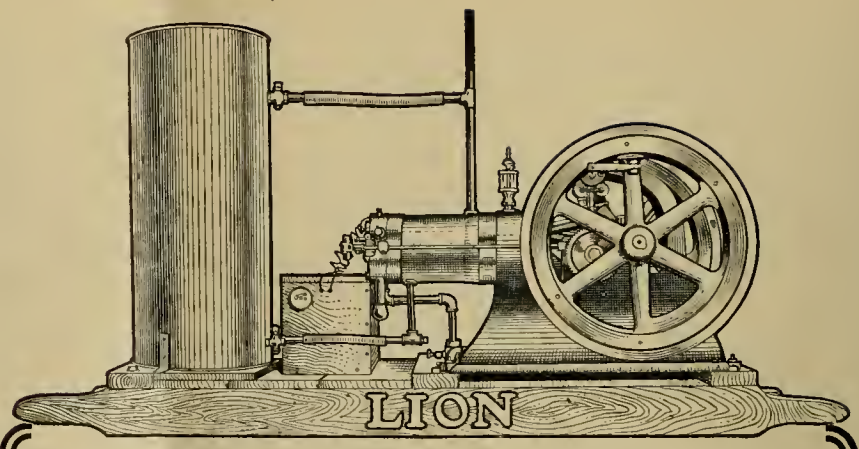
The land will then be broken and sowed to cowpeas. If I am short of hay I probably shall harvest the cowpeas also for hay. If I do not need the hay I shall turn them under for fertilizer. If the hay should be made, the stubble will be turned under. During the coming winter the savings from stable, sty and shed will be carted to this field. Next year when I purpose to set this to strawberries, I shall expect to find it in good mechanical condition, clean of weeds and filled with humus.

The best crop immediately to precede strawberries is cowpeas. They nitrogenize the soil, render it friable, free it from weeds, and make it a comfortable home for the young plants. They are a better fertilizer for strawberry land than the clovers. They will do the work in ninety days; clover in two years. Besides doing the work a year quicker than clover they will not fill the soil with noxious seeds to interfere with the growth of the plants and increase the labors of the planter.

Whatever the preceding crop may be the field should be plowed to a moderate depth in the fall. All vegetation turned under will then have time to begin and partly carry forward the process of decay and thus get under way a copious supply of available plant food. The spring following, as soon as the ground is dry enough to work well, it should be made ready for planting. It need not be broken again with a "turning plow." If the ground is clear of rocks and stumps, a disc harrow is a good implement to use. Disc the ground lengthwise five inches deep. Harrow and drag that the cross way. Then disc it the cross way. Harrow and drag that lengthwise. If you do not have a disc, or if your field is too rough for its use, then use a two-horse cultivator or a double shovel. With these cultivate lengthwise and crosswise, and harrow and drag, or roll, until the field is as fine as a garden bed and as firm as a field for wheat. In such a foundation plants can be set at a regular depth and easily firmed. Fixed in firm, moist soil, they will begin at once to grow, and their growth will be rapid. If the ground be broken too deeply in the spring and be too loose, the plants cannot be properly firmed in, the ground will not retain its moisture so well, the sun and winds will dry it out, the plants will not start to grow so quickly or grown so rapidly, and many are likely to die from drought or from being covered too deeply when settled by a hard rain. Whether ground be fall or spring broken, it should be thoroughly worked down and made firm.

With this preparation of the ground take a marker and mark off the rows one way. I use one similar to a corn marker. It marks five rows at a time three feet apart, and is drawn by two horses. A corn planter is the best implement I have ever used to mark the ground the other way. It leaves the mark smooth, firm and distinct. Take now your dibbles and hump it.

Neosho, Mo.



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

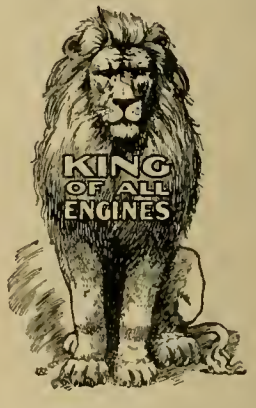
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

LYONS ENGINE COMPANY, Lyons, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in The Strawberry. Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

LYONS ENGINE COMPANY, Lyons, Michigan.

Do Your Doors Rattle?

Of course they do. 99 out of every 100 rattle and slam with noise enough to drive anyone crazy

Stop It!

with one of our *Anti-Door-Rattle* Attachments. Anyone can attach them to the door casing. They last forever. Self-adjusting. The best thing you ever saw. They all say so

Agents Wanted; No Has Beens

Price: 10 Cents Each, or 75 Cents per Dozen
State whether light or heavy door

The American Anti-Door-Rattle Co.
415 Perrin St. YPSILANTI, MICH.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

WE only wish that the members of this school could get all together at one time and in one place—what interesting times we should have! But it would take a big place to hold them all, and would require a megaphone if all would hear the bright and helpful words that surely would be spoken could such an assemblage be had. Sometimes we wish that all the other members might see or read or hear the good things that come to us, but which can here only be "boiled down" to the cold questions and answers of the class-room. One thing is certain; there never was a meeting of a horticultural society in this country that could compare in interest and value to such a session as that would be.

The letters that come to us reveal how universal is the love of nature and how deep the desire of man today to return to her simpler ways of obtaining a livelihood. One city man writes: "I want to know just how to do the work in the best possible way, so that I may indeed win success." The wife of a Buffalo policeman has gone seventeen miles out into the country with her children and through strawberry production hopes to make a home self-supporting so that her husband may give up his employment and join her in her rural home. A Wisconsin man writes: "My wife has read The Strawberry through two or three times, and we both wish to thank you for the courtesies you have shown us. You cannot fail to succeed." An Indiana man says: "Every time I go into the house I pick up The Strawberry and read again and again the instruction and advice and interesting matter it contains. I'm coming to be called The Strawberry crank."

Then the rich experiences we receive, and the interesting way in which they are told. Here is one from away down in Indian Territory, typical of many an entertaining account of experiences with the strawberry. Can any one read this simple narrative and think that the writer is lonesome in her home out in the Southwest, with her strawberry patch giving her such fine mental and physical employment? Mental occupation is the sure and only cure for lonesomeness, ennui, dissatisfaction with surroundings, and all that long list of psychological distempers that wear so many people to a frazzle and leave them in old age, if they survive at all, dried up, withered, uninteresting and non-interested in anything on earth but their own petty ailments—every one of which would disappear in the sunshine of honest effort and kindly fellowship with man and with nature. But this is not a lecture on mental diseases, but simply an introduction to a very interesting account of an experience with strawberries that didn't propose to quit business until they had shown what they could do:

Mrs. H. M. F., Coalgate, Ind. Ter.—I would like to give you the history of my strawberry bed, as it seems to me out of the ordinary. I put out some plants in the fall of 1903, and in the spring of 1904 set out more. Did not let them bloom or make runners. The summer was unusually hot and dry; no water here to irrigate, and the plants looked fire-swept, so I supposed they were gone, and did not mulch in the fall. Last spring they came up here and there—about one-third. I worked among them faithfully to save them and they grew, but bore scarcely any fruit. They put forth runners and I worked for a double-hedge row, having six rows about seventy feet long. They grew so fast they got ahead of me; I could not down them. They took the whole space between the ridges. (I was obliged to raise the rows, as the bed is on a slope to the north and washes badly during our heavy spring rains.) I mulched slightly last fall, and this spring they bobbed up so fast and so thick I stood helpless, and they were in bloom before the ground was in condition to cultivate. The bed was white with bloom, and now I never saw so many berries; it looks as if every plant would bear a box or more. I have plucked many buds off, too. Some of the fruit is very large, though not ripe, however.

Now I would like to know if I should destroy that bed this fall?

We should not think of destroying a lot of strawberries that had shown such persistence. There is no doubt that the patch is in such vigorous condition—that there is such a preponderance of 1905 plants there—as to insure a bumper crop in 1907. Your experience only confirms our oft-repeated claims for strong and thoroughly developed plants. They are so lusty and vigorous that it is impossible to discourage them by any treatment short of actually digging them up. The combination of good plants, good soil, good cultivation, renders strawberry production the safest and most dependable of all the fruit crops.

Mrs. M. H. B., South Vernon, Vt. What can I do to kill out wheat grass and grubs?

We have explained before the manner of handling grubs, but take pleasure in repeating the information here. The best preventive is to break the ground in the fall, which subjects the grubs to the freezing, also to the attacks of birds. But as your plants are already set in ground infested with grubs, the best thing to do is to keep a close watch while hoeing and cultivating the plants, and at first sight of plant being attacked by a grub, which is easily detected by the wilting of the plant, if you will dig around the plant you will locate the grub at about half an inch to an inch and a half below the surface, and if the grub is killed before it has destroyed too many of the roots, the plant often may be saved. The grub is difficult to get rid of because of its underground habit.

In regard to wheat grass, we assume that you mean what is more commonly known as cheat. The best way to get rid of cheat when it appears in the fruiting bed is to go through the field with a sharp hoe and cut the grass off just below the surface, or if the ground is wet from rain, the better way is to pull it up by hand. We have just completed in our own fruiting field the work of removing all weeds and grass, which will develop in the spring, no matter how excellently the field previously has been cared for; and we followed the methods here described.

W. H. S., Rock Stream, N. Y. How can I get rid of chick weed in a strawberry field, and can a success be made raising strawberries on ground badly infested with this weed?

Please note the instruction given Mrs. H. B., South Vernon, Vt., in this department and this issue. The fact that the soil is infested with chick weed will be no hindrance to the successful growing of strawberries, provided you keep the soil well cultivated and hoed, as the frequent stirring of the soil will prevent the seed from germinating, while it also will force the plants into vigorous activity.

L. A. L., Waterloo, N. Y. Should we stop cultivating among our plants after the fruit buds are set?

It is unnecessary to cultivate the fruiting bed unless you wish to do so, but last year we cultivated our fruiting bed with splendid results. In doing this we raked the mulching up close to the rows of plants, then cultivated the *bare* space between the rows. Any weed that made its appearance directly in the row was pulled out by hand after a rain. Then the ground is moist and the weeds pull very easily. If you start cultivation of the fruit bed, it must be continued through

the entire fruiting season and the cultivator should go through after each picking, as the pickers trample the soil firmly. Cultivating will cover the tracks and avoid any danger of waste through capillary attraction.

F. M. R., Bridgeton, N. J. For the last few years I have been very much annoyed by a small bug which stings the stem just below the blossom, causing the blossom to drop off, wither up and die. Does not affect the rest of the stem. There will be a good stiff stem —but no fruit, compared with what there should be. Do you know of any preventative to remedy this trouble?

The insect is the strawberry weevil. It is a small black snouted beetle. They deposit their eggs in the buds of strawberries and then gnaw partly through the stem, a short distance below the buds, causing the latter to wilt and droop. Their eggs hatch into little grubs which develop in the bud, becoming full grown in a few weeks. They pupate in the buds, and emerge as a perfect beetle. The beetle then migrates to flowers of other plants. About the only remedy, or rather prevention, is clean cultivation. Then after the fruiting season mow off the vines, burn the bed over and narrow down the rows. Full instructions for this work are given in this number of The Strawberry. The April issue of this magazine gives complete instructions in the treatment of insects and fungous growths. Never take plants from an old fruiting bed. Keep the fence rows near your plants clean.

G. W. G., Clinton, Mo. Would it be advisable to spray for rust now? The plants are all in bloom.

Certainly not. Never spray while plants are in bloom or in fruit. Spraying materials are deadly poison; if they were not, they would not be effective. All spraying must be done before blooming and after the crop is harvested.

J. M. C., Fresno, Cal. I have a number of chickens, enough with my hogs and horses to furnish about all the nitrates I will need. I mix my wood ashes from the house with the barnyard manure and apply that to the ground and with my chicken droppings. I use land plaster under the roosts. Now what I want to get at, does the land plaster contain any potash and, if so, about what proportion is available?

The manure from your chickens and hogs will be ideal for your strawberry field. But it should be applied very lightly and thoroughly incorporated into the soil. Either of these manures can be scattered on the ground before plants are set or afterwards, whichever suits you best, and they will furnish all the nitrogen the plants need. You should never mix the wood ashes with the manure of any kind, as the lime in the ashes will set the nitrogen free which the manure contains. This is the most costly part of the fertilizer. The best way is to apply the manure and ashes separately.

In regard to the land plaster: it contains a very small percentage of potash. Its principal advantage is to improve the mechanical condition of the soil. Land plaster is one of the best things you can use in your hen house, as it will absorb moisture and hold it in reserve for the use of the plants.

G. R. E., Alba, Texas. I have an acre set to strawberries; half of them are runners taken from thoroughbred plants set out in the spring of 1905. I have a propagating bed of 500 plants put out at the same time. I let this bed bear a crop of runners last year and they are fine ones. Will the runners from this bed the second year be as good as those grown the first year? 2. In layering the runners, when is the best time to do so, or what time of the year do you stop cutting them off when you mean to layer them in the double-hedge row? 3. I have a few roots set in the twin double-hedge row. My rows are eighteen inches and thirty-six inches apart, and the plants are set twenty-seven inches in the row. I intend to layer two plants between each hill and they will be nine inches apart. Will this be too close to set Lady Thompson?

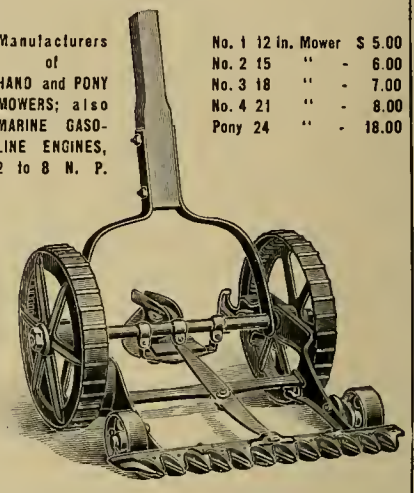
1. The runner plants in your propagating bed grown from plants set in 1905 will be ideal for this year's setting, but it is bad practice to take runners from a two-year-old bed. If you wish to grow your own plants for several years you should take some of the plants produced from your 1905 setting and start another propagating bed for next year's setting. Please read complete article on "The Propagating Bed" in this issue of The Strawberry.

2. In layering runners the physical condition of the mother plant should be considered. If the mother plant is strong and bears a large foliage, showing vigor and activity, it is in prime condition to permit its first runners to be layered. In order to get a good plant the first consideration is a well-developed crown, and this can be had only by giving the plant all the advantage possible. Just as soon as the node forms throw some soil with hoe or hand on the runner wire just back of the node. This soil will hold the runner in place, preventing the wind from moving it about. It also holds moisture, which encourages the roots to start from the crown at once, and just as soon as the roots take hold of the soil the runner plant is fed from two sources—from the mother plant and through its own roots. In a short time the roots of the runner are able to supply an abundance of food

CLIPPER LAWN MOWER CO.
DIXON, ILLINOIS

Manufacturers of HAND and PONY MOWERS; also MARINE GASOLINE ENGINES, 2 to 8 N. P.

No. 1 12 in. Mower $ 5.00
No. 2 15 " - 6.00
No. 3 18 " - 7.00
No. 4 21 " - 8.00
Pony 24 " - 18.00



THE MOWER That Will Kill all the Weeds in your lawns. If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders of roots, the grass will become thick, and the weeds will disappear. THE CLIPPER WILL DO IT
Please Send Draft or Money Order or Registered Letter

The Northland Shop

Designers, Illustrators and Engravers

Let us figure with you before placing your work

NO. 11 3RD AVE.,
THREE RIVERS, MICH.

THE CRESCENT ENGRAVING CO
KALAMAZOO, MICHIGAN

Engravers, Electrotypers
Catalogue Makers

Landscape and Nursery Work
A SPECIALTY

Only house in the West making Steel Electrotypes. For durability and definition these practically equal original engravings

Samples and Estimates
Cheerfully Furnished

and moisture, at which time nature has provided a way to "wean" the runner from its mother.

3. Your method of growing the twin double-hedge row is correct, and the Lady Thompson should give you good results. The Lady Thompson does not build up a large crown system, and its fruit stems are long and the berries are borne in clusters similar to cherries. We mention this fact to indicate that the plants will not crowd one another.

W. H. C., Kinross, Iowa. Would it be all right to put fine manure on top of the ground after I have the plants set out and work it in the soil? 2. The varieties I have are the Texas, Warfield, Parson's Beauty; are they all good kinds and do they mate all right? 3. How is the best way to grow them—in single or double-hedge rows? After enough runners to form the hedge row are made, should I keep all the other runners cut off?

There is nothing you could do that would be better than to spread fine manure between the rows after the plants are set. While cultivating the plants this manure will be mixed in with the top of the soil and the rains will cause the liquids to leach down where the roots can make use of it. Of course, the liquids from this manure will have a tendency to cause the plants to send out more runners than if the manure were absent, but if the runners are restricted, the crowns or bud systems will grow relatively strong.

2. The three varieties you grow will mate well together. Set Warfield in rows between Texas and Parsons' Beauty; the flowers of both of these bisexuals are exceedingly rich in pollen.

3. The varieties named will give good results when grown in single-hedge rows. After enough plants are set to make the single-hedge row, treat the runners that come after as you would weeds.

W. E. A., Glouster, Ohio. I am starting a small strawberry plantation. It is high oak-ridge, or clay, soil. I can get plenty of stable manure at 25 cents a load by hauling it from one to two miles. I will give local quotations on commercial fertilizers: Bone meal $2 per cwt., potash, $4 per cwt. and Canada hard-wood ashes, $15 per ton. Now for the questions: 1. Are those prices too high? 2. Would it be necessary to use all three of the fertilizers and manure at the same time on the same ground? 3. Would one load of stable manure be too much to the square rod? 4. Would it pay to ship strawberries to a city like Columbus, a distance of seventy-five miles? 5. How many pounds constitute a bushel of hard-wood ashes?

1. The quotations you have on commercial fertilizers are very reasonable.

2. As you can obtain stable manure we would advise you to apply a light dressing of that first; the commercial fertilizer may be applied afterwards. Both manure and fertilizers should be well incorporated into the soil before plants are set.

3. We are not clear as to just what you mean by one load of stable manure to the square rod; but if you mean one two-horse load, it will be entirely too much. A wheel-barrow load will cover a square rod as thickly as it should be applied. There is such a thing as getting too much manure, causing an over supply of foliage at the expense of fruit.

4. It would certainly pay to ship your berries to Columbus as it is within a distance of seventy-five miles. We have shipped our berries from forty-five to 200 miles from the farm.

5. It is rather difficult to say just how many pounds a bushel of wood ashes will weigh, as they vary quite a little. A bushel of unleached, hard wood ashes would not weigh more than from forty to fifty pounds. Apply wood ashes at the rate of forty bushels to the acre.

WE WANT A PHOTOGRAPH

of your strawberry patch, be it little or big—and this means every reader of The Strawberry. We offer $10.00 in cash prizes, as follows:

First Prize Photograph, cash - - -	$5.00
Second Prize Photograph, cash - - -	$3.00
Third Prize Photograph, cash - - -	$2.00

All photographs submitted to be the property of the Kellogg Publishing Co.

THE STRAWBERRY

H. B. W., Olathe, Kan. Where can I get a small hand sprayer, or some form of sprayer that can be easily handled and yet will do good work?

There are a number of sprayers of this order made, and reference to our advertising columns will indicate where they may be obtained. One very convenient "knapsack" sprayer is mady by the Lenox Sprayer Co., 1298 1-2 Broadway, N. Y.. and this company is just now making a special offer of a very attractive nature.

G. Q., Theodore, Sask. I set out some strawberry plants this spring. They were in fine condition when I received them. They were set out the same day they were received in well-prepared soil. The day after they were planted there was a good rain, but about a week later we had some heavy frosts, which pretty well wiped the plants out. Should I have covered the plants over until the weather became settled?

It is scarcely possible that frost has injured your plants. We have had the ground freeze three and four inches deep immediately after plants were set, and while the hearts of the plants would look quite brown after the freeze, yet they would come out all right and develop into thrifty plants in a very short time after such an experience. We would advise you to continue cultivating and hoeing these plants, and you will be surprised to see what they will do in the way of producing big red berries.

C. F. P., Tecumseh, Mich. Will millet hay make a good fall and winter mulch for strawberries? Am looking for something that may easily be grown upon my own place, and have known of its use frequently in onion mulching. Please give me the benefit of your experience on this question.

There is no question but millet hay will make an ideal mulch for strawberries provided it is cut before the seed ripens, and this should be done before it heads out, because millet makes a large amount of seed and would cause endless trouble at fruiting time if not cut before maturity. We also wish to say that millet is very exhausting upon the soil and often leaves the soil in a lifeless condition. However, cutting before it ripens lessens the demand upon the soil's resources. Sowed corn makes an ideal mulching also, and leaves the soil in much better condition than does the millet. Sow about two and a half bushels of corn to the acre, which will make the corn so thick that the corn will grow spindling, thus making it easier to handle.

J. A. S., Columbus, Ohio. When you mow over your strawberry patch, do I understand that you use an ordinary lawn mower, or what do you use? 2. When you burn over the field after the mowing is done, does that destroy the plants, or what benefit is it, other than destroying the insects likely to be present? 3. You say one ought to pick off all blooms the first year of bearing for new plants, in order to make them the more prolific and vigorous fruit-producers the next year. That will necessarily deprive the grower of one season's entire output, will it not, unless he has another and older patch? 4. How long are plants supposed to be good for bearing? 5. What is the very best mulch?

1. In mowing over the strawberry patch an ordinary hay mower is used.

2. Burning over the plants after the fruiting is done does not destroy the plants but simply burns off all the dead and useless matter that has accumulated about the crown, leaving the crown clean and free to do its best.

3. Picking all bloom the first year does not deprive the grower of one season's crop because he would not receive a crop the first year if they were allowed to fruit. The best he would get would be a very small quantity of berries, while the strength used in producing those few berries would so weaken the plants that

he never would get a large crop from the plants. It is necessary to give the plants one year in which to develop vigor and strength and making them capable of producing large crops of big red berries.

4. Plants will easily bear two large crops; sometimes the second crop is even larger than the first. A third crop may be grown if the best of care has been given the bed, but there will be a lessening in the quantity. We advise the growing of but two full crops, plowing the old plants under and growing some other crop on that particular piece of ground.

5. The very best of all the mulches is wheat straw.

C. W. M., Narrowsburg, N. Y. I put out about one thousand plants last August—plants sent me by a friend. They were cultivated until late fall and then were put under a heavy stable manure mulch until May 1. They look to be in good condition, many that appeared dead last fall looking well and thrifty now. Please advise which would be the better way—allow them to fruit, or pick off the blooms? Have read The Strawberry since its first issue, and desire to follow the business in the best way possible.

Plants set in August of last year should be so well established in the soil that they may produce a small crop of berries this season without injury to the plants. We say this with the understanding that your plants are vigorous and thrifty.

T. McD., Cable, Wis. Will runners have to be kept off plants during the fruiting season? 2. How often should the fruiting bed be cultivated? 3. Which is the better way to have the rows run—north and south or east and west? 4. In single-hedge row should not all runners save two be removed? 5. In shipping berries a short distance is it better to do so by night or by day? 6. Should any berries be picked while yet wet with dew or rain? 7. Should the berries be fully ripe when they are to be shipped a distance of 150 miles?

1. You need not remove your runners during fruiting time.

2. The fruit bed is better when not cultivated at all, provided there is a good mulch between the rows, as there should be. Of course, if there is no mulch between the rows, the tramping of the pickers through the rows would pack down the soil and affect the growing berries. If, therefore, there is no mulch between the rows, you should cultivate after each picking.

3. It makes no difference which way the rows run so far as the points of the compass go. They may be set east and west, or north and south, or obliquely with equally good results.

4. You are right that there should be but two runners from the mother plant when the single-hedge row system is followed.

5. Night shipping is always the best for berries, of course, as the sun's heat causes them to fall down badly when shipped in the day time.

6. Pick no berries while they are still wet with morning dew or from rain.

7. Berries that are to be shipped a distance of 150 miles should be just a little under ripe.

F. H. M., Roswell, N. M. Our soil here is loose and will grow anything we plant if a sufficient quantity of water is supplied. Few strawberries are grown here; we get a few green, knotty ones from another part of the Southwest, and I am confident some of the old-timers here don't know how a good strawberry tastes. 1. When should we have berries from plants set this spring? 2. If they bloom early and first blossoms freeze, will it have any bad effect on later blooming?

Your soil being loose, we would advise you to roll it very firmly before setting the plants, because if it is left in too loose a condition, it will allow an over-supply of air to come in contact with the bacterial germs, which will cause them to become too active; this will work up all the humus and manure into available form, while if it is pressed tight, it will allow just enough air to keep the bacterial germs in normal condition. There is no reason why you cannot grow strawberries as well as any other kind of fruit. We trust that you will get some very fancy fruit so that you can show these old timers that you understand your business.

1. Plants which are set out this spring should not be allowed to fruit until the spring of 1907. Just as soon as the buds open, pinch them off; this will throw the strength to the mother plants, and they will develop a large crown system, which will produce a big crop of berries next season.

2. As only part of the bloom opens at one time it is not likely that one or two frosts would injure the crop to any great extent.

L. H., Neenah, Wis. We have decided to try the twin double-hedge row and would like some information: 1. In setting the plants twenty-four inches apart in the row would you let one runner set between this space, and should we cut it loose from the mother plant as soon as it is set and started to grow? 2. How late in the fall should we work the ground? 3. Is it good to cut runners off during fruiting time the second year? 4. Would you spray the young plants during the summer? 5. Should we cultivate the ground in the spring when the plants are old enough to bear fruit? 6. Would you advise us to put manure between the rows in the fall before covering them with straw? 7. When you take the straw off in the spring would you let it lie between the rows?

1. In setting the plants twenty-four inches apart in the row, we would allow each mother plant to make four runner plants, layering these directly in the row.

2. The cultivation depends upon climatic conditions. If the fall is late and the weather continues warm and nice, you can continue cultivation until the latter part of September, but if the fall comes early, the cultivation should be discontinued accordingly.

3. It is unnecessary to cut the runners from the fruiting bed, but it will do no harm to do this. In fact, it will help the plants to produce larger berries. Of

STARK FRUIT BOOK
44 pages 9 x 12 inches; 22 pages showing in natural colors 216 varieties of Fruit, with concise description and season of ripening of each; 64 half-tone views of Nurseries, Orchards, Packing Houses, etc. Send 50 cts. for book (post-paid) and Rebate Ticket permitting return of book by mail within 60 days and we refund the 50¢. Or, mail us within 1 year, Rebate Ticket with $12 order for nursery stock and we will credit $1.00 in part payment on your order and you KEEP THE BOOK free. WE PAY THE FREIGHT.
We Pay Cash weekly and want more home and traveling salesmen. OUTFIT FREE.—Stark Bro's, LOUISIANA, Mo., Atlantic, Iowa, Fayetteville, Ark.

PIONEER GUARANTEED NURSERY STOCK AT WHOLESALE PRICES.
All stock guaranteed disease free and true to name.
Hart Pioneer Stock is pure bred and produces heavy crops
Value received for every dollar sent us. No Agent's Commission.
WRITE FOR COMPLETE PRICE LIST. WE WILL SAVE YOU MONEY.
HART PIONEER NURSERIES, Established 1865. Fort Scott, Kan.

course, this would be expensive if you are growing berries on a large scale.

4. Inasmuch as your plants come from propagating beds that are thoroughly sprayed, it will hardly be necessary to spray the fruiting bed, unless some insects attack the plants.

5. It will be all right to cultivate the fruiting bed, provided you did not start cultivator until all danger of frost is over. In doing this, you should rake the mulching up close to the plants, and then cultivate the space between the rows. You should cultivate once each week, except when the plants are in bloom. Then you should not cultivate unless the ground is moist enough to prevent dust from flying. When you start picking the berries the cultivaror should follow each picking, as the pickers will tramp the ground down solid, which will make it possible for water to escape by capillary attraction.

6. It will be all right for you to put manure between the rows in the fall before covering the plants. This manure should not be put on until all growths stop. If it is put on too early in the fall, it will stimulate too much vegetative growth and stop the plants from making fruit buds. When you put it on late in the fall after growth stops, the rains will wash the juices from the manure and the soil grains will take these up and hold them in reserve for the plants' use in the spring, just when they need it most.

7. In removing the straw from the plants in the spring it is best to take a common fork and merely part the mulching from over the rows. In doing this make the part just wide enough so the plants can come up through it.

E. T. G., Campbellton, N. B. My soil has been cropped until it is not very good and manure is hard to get. There are three shallow ponds on the place and there is from one to four feet of soft mud on the bottom, which, when dry, looks like ashes. Would not that answer the place of manure? Some say it is very rich, but I want to be sure; for I want the best plants and to give them a good start.

We would not advise you to use this mud on your strawberry ground as it would have a tendency to bake and would be of no benefit to your plants. If this muck soil was thoroughly dry before taking up and applying it to the soil, it would be all right, but do not do this while it is wet or pasty.

J. W. M., Arispe, Iowa. Does the strawberry bed have to be reset every third year? If so, shall I reset the old plants or the new ones? 2. Should I keep the rest of the runners cut off every year, except those it took to make the single or double hedge rows the first year.

1. No strawberry bed will give you the proper amount of fruit for the space and trouble required after the second crop is grown, therefore you should arrange to have a new crop growing all the time, plowing out the old one after the second crop and planting to something else. This tends to keep the land free from insect and fungous pests.

2. Never set an old plant; the new plants should be grown in a propagating bed. You should cut off all the runners in excess of those you have permitted to grow to form your double or single hedge row.

M. T. U., Albert Lea, Minn. What is the customary price paid per quart for picking berries when the pickers sort them, as you have suggested in The Strawberry? 2. How many pickers per acre is necessary to take care of a good crop? 3. About how much per acre is it worth to pick the blossoms from a newly set field of plants?

1. The customary price per quart where strawberries are sorted by the pickers as we have outlined, is 1 1-4 cents a box. Where this sorting is not done, prices for picking are customarily fixed at 1 cent per box.

2. The number of pickers required would vary greatly. The size of the crop itself, the number ripe at a given time, and many other conditions would enter into the matter, but from twelve to fifteen good pickers should do the work with ease.

3. It would be almost impossible to answer. The nature of the work would make it necessary that it be done by "time" rather than by "the piece", and the labor would vary in different fields.

J. H. F., White Rock, Me. Would like to ask in regard to applying phosphate—do you mean to apply it broadcast over the whole piece and work it in with harrow, or sow it along the rows?

All commercial fertilizers are preferably sown broadcast. This should be done after the ground has been broken up, and it should be thoroughly worked into the soil before plants are set. Another good way is to make a deep furrow where each row is to be set, and then scatter the fertilizers along in this furrow, following this with a five-tooth cultivator so as to incorporate the fertilizer with the soil. Then the plants can be set where the furrow was made after it has been filled in.

J. G. R., Bryantville, Mass. Would like to know the best system of irrigating strawberries, and any information will be very much appreciated.

The only successful way we have found for irrigating the strawberry, is by making a furrow between the rows and running the water through the rows until the soil is well filled with water. If the water is flooded over the plants the soil will become baked so hard as to greatly injure the plant. While the strawberry requires much moisture it is a mistake to have the water about the crowns. When it is put in a furrow the moisture is taken up by the soil grains and the plant receives it in a natural way—that is, by being absorbed through its roots.

G. W. P., Clayton, N. M. I am a subscriber to The Strawberry, and think it the best publication of its kind I ever saw—it can't be beaten, in my opinion. Please advise me if you consider sheep manure good for strawberries. I have a place that was used as a sheep lot for two or three years; have had in it vegetables two seasons and grown fine ones there. What do you think of it?

It should never be forgotten that the sheep has won in all ages the distinction of being the animal with the "golden hoof." This is but another way of saying that wherever the sheep are raised golden harvests follow as a result of the fertility they scatter. Your patch should be an ideal one in its present condition, and we shall expect to hear fine reports from the strawberries grown on such favorable soil in your wonderful territory.

BERRY PICKERS IN THE HOOD RIVER VALLEY, OREGON.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN,
Advertising Manager,
1603 Manhattan Bldg., Chicago, Ill.

SUBSCRIPTION PRICE:
United States and Canada - - $1.00
Foreign - - - - - - - 1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

JUNE, 1906

JUNE is here, with all its wealth of beauty, warmth and color, and we should make the most of it. With this issue The Strawberry passes the first half-mile stone—a half-volume is complete. The event calls for just a word by way of recognition of the extraordinary results that have followed the establishment of this magazine. It is doubtful if in all history a publication has received a more cordial welcome from those to whom it especially appeals than The Strawberry has enjoyed. Subscriptions have flowed in in one steady stream, and this has led to phenomenal results for our advertisers. Our readers have expressed themselves as more than satisfied with the instruction and advice given them, and many have gone so far as to tell us that advice given has changed failure into success.

WE should be lacking in appreciation of the good things our friends have said and done did we not acknowledge these fine courtesies, and we are confident that the cordial relations thus created are to be firmly established by time. For it is the earnest purpose of the publishers to make the magazine better as the months pass and of increasing value to its readers. And our ambition it is to increase the size of The Strawberry family during these pleasant days of June. To that end we call your attention to the offers of cash prizes for those who send us in the largest clubs of subscribers during June and up to the 20th of July. What may not the bright boys and girls accomplish in this way during vacation days? And the industrious housewife, intent upon securing some pin money all her own, may find here just the opportunity she seeks. Nor need the man of the house feel that he is left out, for the possibility of getting $20 in addition to generous commissions allowed on every annual subscription sent us is one large enough to tempt him to take part in the contest. Who will win that capital prize?

AND we have another plan along this line also, in which we ask your personal cooperation. If you are a regular subscriber to The Strawberry and are interested in its purpose, its work and its success, and find in your copy of this issue a subscription blank upon a perforated card, will you not kindly read that blank and pass it on to some friend, asking him to become a reader to this periodical? If each one of our subscribers should secure us just one other, it would double our list at once, and while we are interested in that fact because of the advantage it would be to us, we also are interested, and we believe in this you heartily join us, in the spread of the general intelligence regarding strawberry culture, strawberry production and strawberry marketing which this publication encourages. If we are right in this matter, and you are thus interested, will you not help us by presenting our special trial offer to your friends?

SOMETHING of what has been done for our advertisers is indicated by the enthusiastic letters we are receiving from them. We can do no better than to quote from a few of them. The Wallace Machinery Co., manufacturers of spraying machinery, Champaign, Ill., in a letter dated May 12 say: "Your little journal certainly is a business getter. Without doubt, we have had more inquiries from our adv. with you, with but one exception, than from any other source." Greening Bros., nurserymen of Monroe, Mich., write under date of May 5: "The returns received from The Strawberry have been satisfactory to us. We received 107 inquiries from the 2-inch ad. in the March issue." In other words that little ad. cost them $4.20, and this makes the cost of each inqutry received as a result a fraction under 4 cents. It is to be doubted if any other publication on their list brought Greening Bros. so much business in proportion to the amount expended for advertising. Pretty good for a youngster, isn't it?

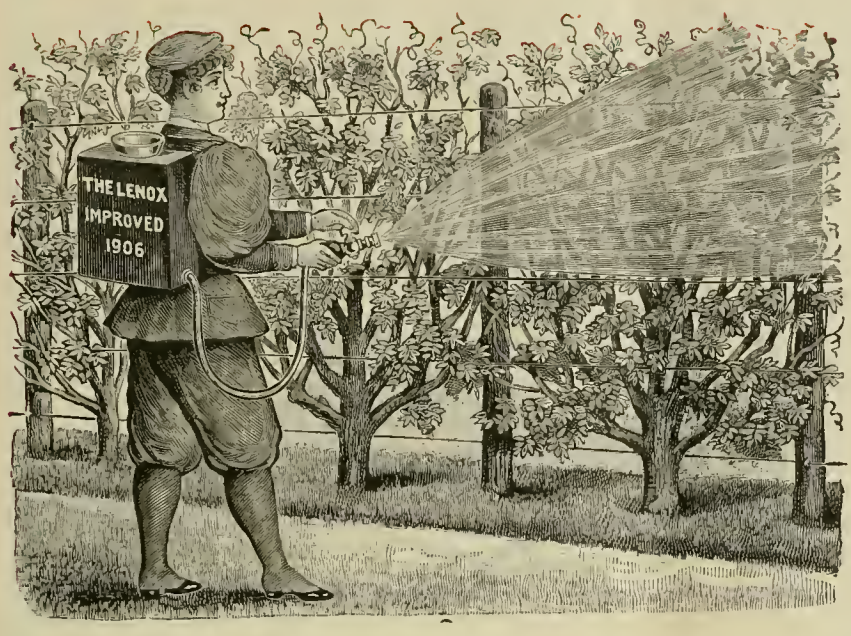
THE cold snap of May 6-7 affected a large section of the country, and reports from southern Indiana and Ohio and from Kentucky indicate that considerable damage was done to strawberries in sections where the plants were set on low land. Albany, Ind., reports heavy losses; Greenfield in that state reports the same. Marietta, Ohio, reports say that the most promising crop in the Ohio River valley suffered a loss of $75,000. Secretary L. A. Goodman of the Missouri State Horticultural society, says the loss was very slight in his state, although it was due to prevailing winds that the damage was not greater. Regarding these damage reports, however, it always is well to remember that the strawberry is a remarkably hardy plant, that all the blossoms do not appear at the same time, and that fields which have been quite severely frost-bitten frequently give off a generous crop of fine fruit.

AFTER all, the cold wave that swept over the South in March did much less damage than was at first reported. Just why people always will insist upon declaring that a fruit failure impends is worthy the investigations of a psychologist. Years ago, when Delaware was headquarters for fine peaches, stories would start from somewhere that the fruit buds down there were killed, and the country lived in mortal fear lest its supply of peaches was to be curtailed. Then the eastern shore of Lake Michigan became the news center of the pessimists. Now it appears to be universal, and the strawberry fields of the South furnish the first stories of spring from these prophets of gloom. But just now the activity all over the South where strawberries are grown gives the quietus to such tales, and in many districts the crop has proved the most extraordinary in history, as regards both quality and yield.

ARE you looking for a convenient and economical way to prevent fungous diseases and destroy the insects that threaten your plants? Something that you can pick up in a jiffy and go out to slay the foe with complete confidence of victory? Just read the advertisement of the Lenox Sprayer Co. in this issue of The Strawberry, and if you are not attracted by that compact and simple "knapsack" machine, that carries so easily and renders such effective service, we shall be disappointed. And it is worth while to note the bargain-counter offer that is made in connection with this time-tried machine. This magazine consistently has urged the need of a sprayer in the strawberry field as a measure of protection. The Lenox Co. offer a way to secure one under such terms as come within the reach of all. Write them at 1298½ Broadway, New York, if you would have further information.

ONE of the biggest concerns of its kind in the world is the National Paper Box Co., whose headquarters is at Kansas City, Mo., but whose branch houses in other cities are affairs of large proportions. The berry box is one of the important factors in strawberry production. Upon its neatness, finish, ability to stand up under the tests to which it must be subjected in going from field to market, depends in no small degree the price the grower is to receive for his product. The splendid business done by this company is eloquent testimony to the quality of its output. If you have not as yet put in your order for boxes, you will make no mistake in investigating the merits of the boxes made by this company. They are in many shapes and you certainly will find something there that will please you.

SEASON IS LATE



WE MUST UNLOAD

YOU GET THE

Lenox Improved Sprayers

FOR

$3

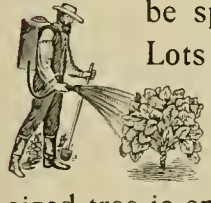
By sending to New York

THIS IS THE REGULAR
$5.00 SPRAYER

Prompt Shipment Guaranteed. DELIVERY IN TWENTY-FOUR HOURS

It is the latest improved LENOX SPRAYER—a Woman can use it. It has a swinging agitator inside; swings and sweeps the bottom at every step you give, keeping the Bordeaux or Paris green from settling. Has a strainer cup like a milk strainer. Nothing can enter to bother you. Holds 24 quarts; built of Apollo Brand Galvanized Iron. Made to wear and to work. Press your thumb upon the bulb, you get your spray. Stop your pressure and you stop the spray. Pumps every drop out until empty. No air pump business. No stopping every few feet TO PUMP AIR—OR TO SWEAR.

A Woman Can Use It!



A Potato Field, a Cabbage or a Strawberry Patch, a Vineyard, can be sprayed easily and in less time than to get the big pump out. Lots of times you can use a Knapsack where you cannot a barrel pump. Handy at any place. Your man in the field will use it three times before he will rig a barrel and team once. With it a man gets into a tree and in a few minutes a good sized tree is sprayed, and he proceeds to the next one. This is the sprayer you get for $3.

Regular price for this sprayer is $5, but season now a little late; we rather sell at $3 than wait until next season to get $5.

You will never get a LENOX for $3 again. If you want one or more DON'T TALK LONG. Send in your express money order. No lengthy letters necessary. We will know what you want, and that you want it quick, too. But give us your address very plain. EXPRESS RATES FROM NEW YORK CITY ARE LOWER THAN FROM ANY OTHER POINT.

A LOT OF BORDEAUX MIXTURE and **BORDEAUX PAINT** in gallon cans concentrated form, "LENOX BRAND", to mix with 50 to 100 gallons of water—$1 per can. Six-can case, $5. A small can, concentrated, "sure destruction" to San Jose scale, to mix with 50 parts of water, will be sent FREE with each sprayer.

Remit by Express Money Order to

THE LENOX SPRAYER CO., 1298 1-2 Broadway (Herald Square) NEW YORK

$75 Round Trip to North Pacific Coast

First-class round trip tickets from Chicago to Seattle, Portland, Tacoma and to California points will be sold at the low rate of $75 by

THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY

EVERY DAY THIS SUMMER

Liberal Return Limits and Stopover Privileges

Tickets will be good on THE OVERLAND LIMITED via Omaha; THE PIONEER LIMITED via St. Paul and Minneapolis, or THE SOUTHWEST LIMITED via Kansas City.

Why not go via one of these routes and return via another?

Advance information about rates, routes and train service mailed to any address free

F. A. MILLER
General Passenger Agent
CHICAGO

R. C. JONES
Michigan Passenger Agent
32 Campus Martius DETROIT

July, 1906

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."
—HENRY WARD BEECHER

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Are You Hustling For That $20 Cash Prize?

It is Yours if You Only Hustle Hard Enough

And keep everlastingly at it, for it is a

Square Deal and an Easy Winner

And You Make Money if You Lose!

Because the commission you receive on every subscription you secure for THE STRAWBERRY will more than pay you a good wage

BUT TWENTY DAYS MORE

The Contest will close July 20. That is, you have until that day in which to complete your work. Your letter with the last list of subscribers must be dated and stamped at your local postoffice on July 20. This gives all an equal chance

HERE IS OUR OFFER:

1st Prize for largest club of subscribers to The Strawberry received	$20
2nd Prize for second largest club of subscribers to The Strawberry received	$15
3rd Prize for third largest club of subscribers to The Strawberry received	$10
4th Prize for fourth largest club of subscribers to The Strawberry received	$ 5

If you haven't hustled up to date, get up a mighty hustle now, and just see what you can do in twenty days of honest, solid endeavor

Get That $20.00 If You Can

THE STRAWBERRY, THREE RIVERS, MICHIGAN

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 7 Three Rivers, Mich., July, 1906 $1.00 a Year

FROM many sources come the same old complaint this season about the small, green berries at the bottom of the box, and in some sections where commercial strawberry production is carried forward on an extensive scale, it is declared that the product of the entire district has been affected by the acts of a few unscrupulous growers who would rather make a nickel by cheating than build up a reputation and insure success by square-dealing. In one Tennessee district, it is said that this influence was sufficient to lower the price upon products there to the point where profit practically disappeared. One of the prominent growers and shippers of that district, asked by a newspaper reporter as to the probable effect upon the business as a result of that sort of cheating, is quoted as saying: "Of course, it hurts the market now, and gives it, in some measure at least, a 'black eye' for the future. The men who are practicing the trick may make some little temporary gain by it, but they are sure to be losers by it in the future. But that does not relieve the situation; such methods hurt all growers and all local dealers. It is at the same time a great mistake and a great outrage."

A BUSY DAY AT E. S. KATHERMAN'S FRUIT FARM, WARRENSBURG, MO.

The characterization is none too strong; indeed, it is not strong enough, for such cheating is a crime, working, as it does, injury to both the consumer and the honest producer whose berries have fallen under suspicion through the false pretense and fraud thus practiced.

But have the selling associations done their very best to eliminate this dangerous factor? This is a question of serious import. And has the selling association done its full duty to the public and its individual members until it has made impossible such an imposition upon all the members by one or a few of its members? We believe not, and we urge that before another season arrives the associations all over the country will each for themselves adopt standards of excellence which shall result in the grading of the fruit and the casting out of every grower who declines to come up to the standard thus fixed. This is one of the very first things that should command the thought of every fruit growers' shipping or selling association. Good goods is the first pre-requisite to a strong and growing market, no matter what line of products is considered, and this may be said to be of even greater significance where fruit so sensitive and perishable as the strawberry is concerned. A reputation for quality means an immediate sale of the fruit, and that must be done in the case of the strawberry, or loss is inevitable and comes swiftly.

Years ago the California orange growers suffered just as the Tennessee gentleman says is true of his particular strawberry district this season. Oranges were packed by the individual growers according to standards each chose to adopt for himself. But the fruit had to go to market in carload lots, and the poor fruit and the bad fruit fixed the price for all of it. The condition became intolerable, and after trying one remedy after another an organization was formed having iron-clad rules, one of which was that every orange packed had to undergo rigid inspection and was graded with utmost care. Then the selling agents had something they could count upon in the way of quality, and the stamp of that association upon the box was all the guarantee the Eastern buyer required. Firsts were firsts and seconds were seconds, and the prices were paid without looking into the box. That should be the place occupied by the strawberry growers of this country in the matter of their product. And when it becomes so we shall have no more talk about losing prices, because there is a demand in this country for every really good strawberry grown.

Of course, if all the good berries grown were sent to one or half a dozen markets the glut would result in lower prices and consequent loss to the grower and the shipper. But add to quality a sane method of handling and a wide distribution of products, and every strawberry grown in the country that is worthy to go on the market will be taken and at a price certain to insure a profit to the grower and to give satisfaction to the consumer.

Apropos to this matter is the following from the Chicago Packer, a leading produce-market journal: "Inferior berries serve to kill the demand among the consumers and when they once give up eating strawberries it's hard to get them back until another season comes on. If growers would pack and ship

only the best it is believed that more money would be realized. It must be remembered that very few people will buy low-grade strawberries because of a low price. The fruit is either good or bad, and consumers prefer something else to had berries.

"The dealers complain that much of the loss caused on their purchases has resulted from their buying good stock and having their orders filled with low grades by growers and shippers. A good many dealers who have heretofore bought assert that hereafter they will not handle strawberries unless they can get them on consignment. They claim they have been deceived too often to warrant taking further chances."

Some Lessons From Experience

By John Middleton

IT is about ten years ago since we began growing strawberries. We secured a few hundred plants from a friend, who instructed us to "put them in a tub of water over night." We followed his directions and, of course, lost about half of them. The remainder, which we planted, made only a feeble growth, but we succeeded in selling about $10 worth of berries the following spring.

The succeeding fall we planted about half an acre of Bubach, fertilized with Sharpless, and the season being dry nearly all the plants died. About $65 was secured from the patch. Up to this time our manner of cultivation was nothing like ideal. We plowed the ground and harrowed it once or twice, marked it and set the plants. Cultivation was given three or four times during the summer, and mulching was unheard of.

Things were soon to take a change, however. I think it was in 1898 or 1899 that "Great Crops of Small Fruits" was sent for and studied from cover to cover, then we discovered some of our mistakes. During the winter we sent for plants of different varieties among which was the Crescent which was planted side by side with the Crescent we were then growing.

The result was simply marvelous. People would ask what variety they were and, when told and shown the two Crescents growing side by side, could not believe they were the same variety. It was certainly astonishing the way our new Crescent kept piling up beautiful big, red fellows, while the others were scarcely fit to pick.

About this time we were experimenting with a number of varieties out of which we selected the Brandywine which had shown up well for two years in our trial beds. We planted about one and one-half acres of this variety and cared for them in an excellent manner with this result: a dry season struck us, after a late spring frost, and the crop proved a total failure, while a few plants of Sample growing along side outdid the Brandywine ten to one.

The following season the Brandywine again fell short of expectations with the Sample leading all other varieties we were then testing. This meant that the Sample must now be our leader, and in a short time we were growing berries that no one could get enough of.

At the same time the stock of other growers would be going begging while buyers would be literally falling over each other to reach our wagon. As the late R. M. Kellogg said: "It was more fun to sell strawberries than to play ball."

As to yield I will say that in the season of 1904 we had about four acres in fruit, three of which being on low ground were completely wiped out by high water, leaving us only one acre, from which we picked 465 bushels of as fine berries as I ever saw.

Last season from that same acre we picked over 300 bushels and we are looking for at least 200 bushels from this same acre next season. Just think, nearly 1,000 bushels of berries from one acre in three years at an average price of $2.50 per bushel (estimated for 1906).

Now I don't tell this to every one. My reason must be quite evident to the publishers of The Strawberry, without whose help I would still be a back number.

Our two money making varieties at present are Sample and Glenn Mary, although we also grow New York, Aroma, Pride of Michigan, Klondike, Wm. Belt, Climax, Excelsior, Dornan, etc.

I have not given our methods of cultivation as I have taken up too much space as it is.

Sunnyside Fruit Farm, Port Jervis, N. Y.

THE question of free-seed distribution is once more brought to mind by the action of the lower house of congress recently in insisting that the practice be continued. This was done in the face of the fact that the majority report of the committee on agriculture reported adversely, and the discussion led to some peculiar admissions. Driven to the wall for an excuse for continuing this "corruption fund," one congressman said: "This is the one piece of graft of which we can all get a piece!" Legislation which is brought about under conditions which call for such confessions of motives appears to be beyond comment. But as the matter is still to be acted upon by the senate, we refer to it here in the hope that readers of The Strawberry will write to their congressmen and senators, urging that free-seed distribution be eliminated entirely from the Congressional appropriation bill. Free-seed distribution has done more than any one thing to bring into contempt our great department of agriculture. Every secretary of that department for years has begged congress to stop it. The people should insist that it be stopped.

Intensive vs. Extensive Strawberry Culture

By M. N. Edgerton

ONE of the more common mistakes made by those who make a start in fruit-growing only to make a failure of the undertaking is to engage too extensively at the start. Small fruit growing is not a matter of arithmetical progression! Were it so, then we might say, if one-fourth acre will give us a yield of 100 bushels four acres will give us a yield of 1,600 bushels.

The reports of the wonderful results secured by some, and such reports are usually correct, are very apt to mislead the uninitiated. We read of some one who has sold $500 worth of berries from a single half-acre, and we say to ourselves, why not get rich growing small fruits? Yes, why not! Very strange isn't it, that we are all, or at least the most of us, after money? We want to get rich and we want to do it quick!

Well, we want to say that it is possible to get (comfortably) rich growing small fruits. That is to say, we believe it is, for we have not as yet, in our own case demonstrated the truth of the proposition. However this may be, let us consider for a few minutes the causes that lead to the production of large yields, and the reason why these yields do not increase in a like ratio with the increase in acreage.

The beginner should not fail to take cognizance of the fact that the growers who have been able to achieve these record-breaking yields are experts in the business and have, for the most part, become proficient through the school of experience. To be sure, there are those who reach great results in a short time and without any seeming effort on their part; but, my word for it, there is a reason for their success and one that is not very difficult of discovery or hard to understand. If we should become intimately acquainted with those who have made such a (seemingly) phenomenal success of the business of fruit growing, we would find that they have a peculiar gift—a gift for hard work and the intensive application of the mind and energies to the work in hand. What wonderful results might we not attain to if we would but apply ourselves to the business of strawberry growing in that degree that characterizes Edison in the application of his energies to the science of invention!

Here I have been engaged in the growing of strawberries for some fifteen years, and the greatest results I can show is a record of a paltry seventy-one bushels from forty-one square rods of ground. Gross

receipts $243. We are dissatisfied! Looking into the causes which have prevented us from reaching greater results we have come to this conclusion: We are, after all these years, just beginning to give the business the study necessary to bring success in the highest degree, or, to bring the question down to a fine point, we failed, at the start, to make a study of details.

So to the beginner we would say, go into the business in a whole-hearted fashion—go in to win! Get a definite and thorough understanding of the why and wherefore of plant life. Make the subject of soils and plant physiology a matter of careful study. By having a definite knowledge of the plant's constituent parts and general make up; by knowing how they get their food from the soil and how they assimilate it; why and how they breathe, and why they must have sunlight—by learning these things one will be the better fitted to supply their needs and more zealous in caring for them. Hence, it may easily be seen that to just the extent we give our plants better care—apply our energies in a more intelligent, scientific manner, if you please—in the same degree will our profits increase.

Exact knowledge, systematically, energetically, persistently applied, then, is the secret of big profits in strawberry growing.

This being true, why is it that intensive culture can not be coupled with extensive culture with a corresponding increase in net profits?

There are several reasons why this is so. One is that the grower with but a small acreage under cultivation is able to give all the details of the work his personal attention, and we have no hesitation in affirming that labor performed by one who is personally interested will be more efficiently performed than if done by hired help.

Even though the help employed be conscientious in their desire to do the work right—just as the "boss" wants it done—yet is there not something still lacking? First, the hired help does not, in all probability, have the love for the work that is so characteristic of the most successful fruit growers—those who secure such wonderful yields, and who will say that he is as capable of doing the work as well as the one whose affections are centered in the plants!

The strawberry plant may be compared to the feminine part of the human race in that it will thrive wonderfully with petting. The secret of the matter being this: loving the plants we are zealous in supplying their every need! Now how is it if we have twenty or thirty acres in strawberries instead of one or two acres? Our whole time would be taken up in overseeing. Indeed, with that number of acres under cultivation we would need several foremen, and to get the detail work done to that nicety that characterizes the work of the enthusiast would be out of the question. For one thing, the soil of this large acreage must be put into the highest state of tilth and fertility. We will grant that this would be comparatively an easy matter, and the ground fitted to the highest state of perfection; but when it comes to the setting of the plants we must dissent. Then comes the matter of pruning and cultivation, and there is where the greatest deficiency will come in. And we also should take into account the fact that the grower of thirty acres can not dispose of his crop at the same high prices that the small grower receives for his fruit. He must frequently depend upon distant markets, and transportation charges and dealers' commissions that consume his profits.

Now, please remember that we do not say that these larger acreages can not be grown at a profit. This question is one of capital and executive ability. What we do say is that when it comes to great yields and profits approximating $1,000 per acre, the extensive grower can not equal the results achieved by the man with the small acreage.

Petoskey, Mich.

ONE VIEW OF MR. EDGERTON'S STRAWBERRY FIELD

SOME OF MR. EDGERTON'S WARFIELDS

A MAN'S life is laid in the loom of time to a pattern which he does not see, but God does, and his heart is a shuttle. On one side of the loom is sorrow, and on the other is joy; and the shuttle, struck alternately by each, flies back and forth, carrying the thread which is white or black as the pattern needs. And in the end, when God shall lift up the finished garment, and all its changing hues shall glance out, it will then appear that the deep and dark colors were as needful to beauty as the bright and high colors.—H. W. Beecher.

ONE advocate of organization, basing his statement on observation of what already has been accomplished in this way says: "Desired results in the strawberry business have come about largely as follows: First—A strict organization, resulting in practical uniformity of varieties, good cultivation and strict rules governing picking and packing. Second—Thorough inspection and grading. These conditions, well developed, have resulted in our putting up a strictly fancy product, and there being so little of this class of goods on the market, compared with the large amount of inferior quality, has brought buyers to us from the best markets in the country. We have always had more buyers than ber-

ries, which accounts for our extremely high prices as compared with others. To sum it up, a strict and thorough organization, managed by men whose successes are appreciated and encouraged by its members is what it takes, provided they are practical strawberry men and willing to give it careful attention and study."

⚜ ⚜

THERE'S so much good in the worst of us,
And so much bad in the best of us,
That I don't see why any of us
Should find much fault with the rest of us."

⚜ ⚜

DON'T be an average strawberry grower. That word average has its proper uses, but when it is applied to a man or a woman it appears singularly inapt, if not positively contemptuous. We are striving to help our friends become leaders in the strawberry world, and we are confident that every one of them who carefully follows the instructions given in this magazine will reach that distinctive and honorable position. An average man is one who never rises above the level of the mass. His strawberries are "just average" in quality and the same in yield. He gets the "average price," and has no earthly reason for getting any more than that. Don't stay in the "average" class; get out on the highlands of quality and excellence. Grow "firsts" in strawberries and command "top" prices. Not only is it profitable in a money way, but it increases the joy of life, makes a delight of your business and wins for yourself and your family a place of honor and distinction in the community. Don't be an "average" in anything.

⚜ ⚜

Mr. Simpson's View of Things

WELL, sir, I must say that this dry soil is a bit discouragin', although these rains we're gettin' just now will help things out mightily. Ye see, we didn't get no snow to speak of last winter; never saw so little in all my born days, an' I've lived here sence I was knee high to a toadstool. Last winter we didn't have one hull day's sleighin', while the winter before we had a full hundred days o' jinglin' bells and smooth sleddin'. The result is, things ain't just as we'd like to have 'em. But it ain't so bad here as it is down south a bit. My wife's brother wrote a letter to me the other day—he's down near Albany, in Indiana—and he says that the strawberry business there is in bad shape because of lack of winter rainfall; berries just dried up in some sections. And things are even worse in parts of Kentucky and Tennessee.

"What kind o' uses me up is the fact that my new bed o' strawberries is findin' it mighty hard to get a hold on the soil, and some of 'em have died, for surface moisture won't do the business like that which comes up from below. I ain't no scientist, and I can't tell you why it's so; but it is so.

"But what's the use o' lookin' on the dark side o' things? I just come acrost a little piece o' poetry that hits me; I believe it's just the way to look at things that seem to get kitterin' an' crossways—things sort o' straighten themselves out, if you give 'em time. Just let me read it to ye, and see if it does you as much good as it done me. 'Scuse poor readin', my eddication's limited in that line; but here goes:

JUST TRY SMILING

WHEN the weather suits you not,
Try smiling.
When your coffee isn't hot,
Try smiling.
When your neighbors don't do right
Or your relatives all fight,
Sure it's hard; but then you might
Try smiling.
Doesn't change the things, of course,
Just smiling;
But it cannot make them worse—
Just smiling.
And it seems to help your case,
Brightens up a gloomy place;
Then it sort o' rests your face—
Just smiling."

"Now there's Bunker; I wish he'd read a thing like that once in a while and take it in. He's in a stew all the time about somethin' or 'nother. He's had another time with his plants. Wanted to fill in some vacant spots and sent off late to a nursery to get some. Bein' late, the plants were well developed, and the tops were green as grass, showin' vigor. But you know when the sap goes to the foliage and fruit it's bound to change the roots and, if you've ever noticed, they get as black as your hat when the sap rises out of them. The minute Bunker saw them roots, he flew into a rage, and without ever seein' to the crowns or lookin' at the fine foliage, he rushed over to see me about it, swearin' vengeance agin' that nursery house. But he didn't throw them in the scrap heap this time. 'Member I told you about his doin' that when the dormant plants he got last spring wa'nt as big and green as the catalogue picture showed 'em to be in summer time. It was fortunate for him he didn't, 'cause now he's got a pretty nice showin' o' plants. Bunker's comin' on, an' he'll get there yet. But I wish he'd just try smilin'. He'd be better off, and so would his family and his family and his friends."

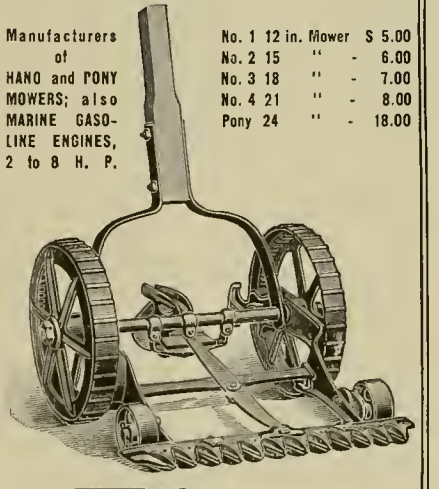
⚜ ⚜

IN his very interesting article, which appeared in June issue of The Strawberry, J. R. Graves, the extensive strawberry grower of Neosho, Mo., referred to the fact that there is no other fruit crop so safe as that of the strawberry. He declared that the crop is as safe as is the corn crop. When we recall the disastrous effects of various forms of scourges which sometime not only devastate the season's crop of peaches or apples, cherries or pears, but frequently take the orchards as well, we may gather some idea of the force and meaning of Mr. Graves' statement. To be able to grow, year in and year out, a crop of fruit for which there always is a demand greater than the supply, and to be as confident that the crop is to be successful as is the man who grows corn on the broad prairies of Illinois or Iowa—these are considerations which should inspire the confidence of all in the future of strawberry production as a commercial enterprise of vast, of unlimited, proportions.

CLIPPER LAWN MOWER CO.
DIXON, ILLINOIS

Manufacturers of HAND and PONY MOWERS; also MARINE GASOLINE ENGINES, 2 to 8 H. P.

No. 1	12 in.	Mower	$ 5.00
No. 2	15	"	6.00
No. 3	18	"	7.00
No. 4	21	"	8.00
Pony	24	"	18.00



THE MOWER That Will Kill all the Weeds in your lawns. If you keep the weeds cut so they do not go to seed, and cut your grass without breaking the small feeders of roots, the grass will become thick, and the weeds will disappear. THE CLIPPER WILL DO IT

Please Send Draft or Money Order or Registered Letter

STRINGFELLOW'S
"NEW HORTICULTURE"

This radical new book has aroused the horticultural world as no other book ever published has. It treats the subject from a new standpoint. Its methods are almost startling. Leading orchardists and fruit growers endorse its principles. The man who would grow, gather, keep and ship fruit with the greatest success at least cost finds this book a regular **gold mine.** No work ever published on the subject contains so much that is new and practical. It's sure to work a **REVOLUTIONARY** and **ORIGINAL** **BOOK** complete turning over of old theories and methods. Read it and make every tree and bush earn you more money. Circular free. Book, postpaid in paper binding, 50c; cloth, 75c. Order early, as edition is limited. Address

Farm & Ranch Pub. Co., Dallas, Tex.

STRAWBERRY PICKERS AND PACKERS IN A MINNESOTA FIELD

July Work in the Strawberry Field

JULY work is much like that of June, as the cultivators and the hoes must still be kept busy lest weeds and grass get the start of your plants. This, of course, is not the main reason for cultivating the plants, for it is the vigorous growth of the plants themselves we desire, and this we can have only when an abundance of moisture is present in the soil and plant food thus is made readily available. The only way to conserve moisture in the soil is by the constant stirring of the surface, which breaks the crust, forms a dust mulch and prevents the water from escaping by capillary attraction. And while the moisture is retained in the soil it dissolves the plant food, which the bacterial germs industriously are working into available forms, so that the minute cells of the roots may absorb this predigested food.

Conserving Moisture

THIS suggests how injurious to the strawberry plants are obnoxious growths, as they not only rob them of moisture, but steal away their food, their fresh air and their sunshine. We can imagine that a strawberry plant, after being freed from surrounding grass and weeds, feels like a bird just let out of an old and befouled cage into the fresh, delicious air, where it may enjoy life after its own nature. We urge that intensive cultural methods be followed throughout the summer months, and we shall try to give our readers the necessary advice and suggestions to the end that they may grow the ideal strawberry. On account of the light winter precipitation the lower sub soil is devoid of moisture to an unusual degree, and we wish every reader of The Strawberry to keep this fact in mind and to allow none of the moisture in the soil to escape—save every bit of it for the plants. Prof. Bailey says, "Irrigate your garden with a rake," and this is wise advice for the strawberry grower. It is the very best sort of irrigation.

Let Plants Be Free

LAST month we told you all about preparing the old bed for second crop, and gave you some pictures of the burning over of the bed. Since that issue went out we have received many letters asking why we advised covering the old crowns after plants had been burned over and narrowed down. One member of the Correspondence School called our attention to the fact that we had urged growers in the April issue to be careful in setting the young plants and have the plant's crown on a level with the surface. "Now in the June issue," says this member, "you advise covering the crown of the old plant with soil. Please explain this seemingly contradictory advice." Let us say that the difference lies in the fact that in one case we referred to a new plant, while in the other we were dealing with an old plant. Now just imagine the plant which has finished ripening a big crop of berries. Is has gone through the great strain of pollen secretion, seed production and the ripening process, and its vitality is almost exhausted. It has used up all the strength of the old roots as well as of the old foliage, and doubtless feels like the grower does after he has picked and marketed a big crop of berries. It is in need of a tonic to restore it to its normal vigor, and the only way this may be accomplished is to cover the crown with fine soil about a half-inch deep, which will hold it dormant for a time and then encourages an entirely new root system to develop just above the old roots and below the new crown or body. This virtually creates a new plant. The young plant, on the other hand, is already full of life and vigor, has experienced no strain, and is ready to start growing as soon as set in the soil. The crown, therefore, is placed on a level with the surface.

Old and New Plants

BY the time this issue of The Strawberry reaches its readers their spring-set strawberries will be showing a desire to send out runners, and while many of our friends will know just what to do others who have had little experience will not know just how to treat these newcomers. When the runner wire has grown about one foot in length a node is formed. This is an embryo plant, which in a few days will open out leaves, showing a desire to appear like its mother. Just as soon as the leaves start, it is no longer content to be tied to mother's apron strings, but prefers to go it alone, and the sooner you aid it to become self-supporting the earlier will it show its appreciation by developing a large foliage and fruit-bud system. Now here is the way to help this ambitious little fellow. When hoeing first break the crust, then lay the runner wire on the loose, moist earth, and with the hoe place a little soil on the runner just back of the little plant. This will hold it in place

Layering Runners

until it gets firm hold upon the soil. In a few days more it will be ready to say: "Good-bye, mother; I'm going to leave you. I've an ambition to start a family of my own, and become the greatest fruiter in the row."

Elements of Success

By A. D. Stevens

THE success of the strawberry crop depends first upon the plant breeder, for without him the crop must soon succumb to failure and defeat. While few recognize him to be of much importance in their prospective success, he stands pre-eminently as the foundation on which growers must build their structure of victory.

In my experience as a plant breeder and plant seller I find that many people class all growers alike, but it is possible for anyone to be a plant grower and dealer, yet not have any knowledge of breeding plants. I have met hundreds of farmers that have classed all plant dealers alike because they have been swindled out of their money and labor by purchasing plants of some dishonest dealer who did not know how to breed plants up to a standard or did not care to take the trouble to do it. He was simply selling plants to get all out of it he could, regardless of the purchaser.

I have seen a great many farmers who say they would rather have plants taken from an old bed that had fruited one or two years, saying they made a much better bed. The only thing in their minds seemed to be to secure an abundance of plants, not comprehending that the old plants had become pollen-exhausted and put their entire energies into plants at the expense of next year's crop. We often hear people say that plants will soon go back to the wild berry from which they started, forgetting that plants may be so aided by man as to prevent "running out" as some call it, but which really is pollen exhaustion. The plant breeder not only brings plants up to a higher standard, but must work to keep them up to that standard. Everything in nature has the tendency to go backward,—has been placed here in a sort of crude, incomplete form. To man has been given the honor of improving and developing standard varieties of fruit.

I have two neighbors in mind that started out when both were young men in about like circumstances. One was very careful in every way in regards to raising a high grade of strawberries, never neglecting anything, sparing no pains, always selecting the best plants, careful to put his land in proper condition, and giving them proper cultivation. It was not an unusual thing to get an acre to net him $600 a year, and it is not surprising that he now may sit back, enjoying a large bank account, and a farm that is the envy of his neighbors. The other neighbor was not so fortunate. He nervously hurried about, neglecting everything, the only thing he thought about was haste, never figuring profits, but always trying to cut expenses to a low figure. This man still flies around in his nervous way; his land is poor, his buildings are tumbling down, he has no bank account, and prospects for life in old age are not promising.

Attention to the details, from the selection of the plants to the packing and marketing of the last berry, is at the bottom of all success in strawberry production.

Bridgeton, N. J.

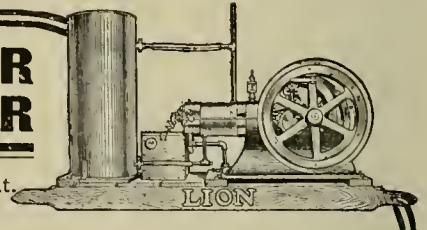
THE ideal home is found where the husband denies himself for the sake of the wife and the wife for the sake of the husband, while both conceal their self-denial so skilfully that neither suspects it in the other.—T. P. Frost.

INDIANA has great districts devoted to commercial strawberry production. That they have the right idea of things is indicated by the remarks of A. Blaisdel of Broad Ripple, before the Indiana State Horticultural Society at a recent meeting. Among other good things he said: "Good berries will pay. Poor berries will not pay. What must we do? The answer is, raise good ones. But we find that the expense of picking, boxing and conveying to market is very great, and leaves to the producer a very small margin even on his good product. And, if I have only one acre of ground for berries what must I do to get a living out of it? The answer is: Make your acre produce very abundantly. The only hope of success lies in fine berries and many quarts. You must have these here in the Indianapolis market or go out of the business. You can have them if you supply the conditions. The plant will do its part, for the governing laws of plant force are as true and regular as the rising and setting of the sun. If man will plant and cultivate, God will give him the increase."

ACCORDING to the statements made by Herbert Wallace in a technical magazine an invention has been made under which an entirely new method of providing refrigeration for freight cars will be in general use. The scheme contemplates the use of mechanical refrigeration. In each refrigerator car will be stationed a machine similar to that used in modern cold storage houses, which will be operated by connection with the axle of the car; thus while the car is in motion ample refrigeration will be provided, and an oil engine will be used in case of serious delays which prevent the car being in motion. Refrigeration of this kind will be, it is claimed, an improvement over present conditions, because there will be no moisture as is the case where ice is used. It is claimed that any degree of temperature required can be obtained by means of this invention and that the machine is so nearly automatic that little attention is required. It is also said to be more economical than present methods.

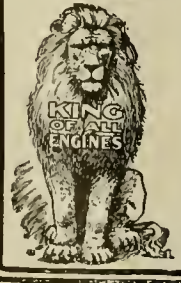
THERE may not be more than two inches of strawberries, but think of the size of the box with the lumber going higher every day! is the gloomy admonition of the Niles (Mich.) Star.

A READY POWER AT ANY HOUR



That's the kind of a power you want. You do not have to wait for steam, or until the wind blows, before you can pump water, grind feed, saw wood or the hundred and one other jobs about the farm, if you have a **Lion** Gas or Gasoline Engine. Have you ever thought just what a saving of time, labor and money it would be to have such a practical power **always ready to operate** your various machines on the farm, in the shop, printing-office, or—**anywhere?**

The LION Engine



is such a power. It is **simple** in construction, **practical** in operation, and **economical** in the use of fuel. You do not require the services of an engineer, as anyone can operate it. We send the **Lion** engine

Direct From The Factory

on a **ten days test trial** and give explicit instructions and directions for setting up and operating it. Write now, stating your power needs, for our easy payment plan. Remember, we send **the engine**, not the agent.

LYONS ENGINE CO., • • Lyons, Mich.

Strawberries and One Woman's Grit

By Elizabeth Clarke Hardy

WHEN Mrs. Lea was left to fend for herself her total assets consisted of a twelve-year-old son, who must be reared and educated, and a small cottage and three acres of land with a mortgage attachment of $1,000. To be sure, there was a small life insurance which would pay the doctor's bills and the funeral expenses of her late husband, with perhaps a few dollars left over to keep the wolf from the door until she could pull herself together aad provide for the future. This morning in early spring she was facing a rather discouraging situation, as she talked over their future plans with her young son.

"I think we would better stay right here, Ray, and try to pay for the place. I am afraid we would not make a success of general market gardening, as your father had planned, and I think we would better make a specialty of strawberries. The half-acre your father set out last spring are in fine condition, and will net us quite a little sum this year, and we will set out the remainder of the ground to the very best of thoroughbred plants just as soon as possible, reserving only the front lawn and a small plot for a garden for our own use."

"And I will leave school and help you, mother. I can do a whole lot that will save hiring help, you know."

"No, Ray, you must keep on with your school. We must plan for your education above everything else. It is fortunate that we are situated so that you can have the advantage of so good a school. You can help me mornings and evenings and during the picking season, which will be in vacation time. I shall send away at once for some of the best of both early and late varieties of plants, so as to make the strawberry season as long as possible, and we will begin business at once."

With Mrs. Lea to plan was to act. A man was hired to prepare the ground, the plants were bought of a reliable grower, and in due time, and with plenty of backache, a plucky woman and a small boy had set out two more acres of fine strawberry plants, and planted one-quarter acre to the garden stuff that was to furnish their table with home-grown vegetables during the coming year.

And then how they worked, while the plants grew and thrived! No pains or work was spared to keep down the weeds and give the plants a chance to do their very best, and it seemed to the watchful workers that their plants responded to their care with almost human intelligence, and meant to break the record.

The half-acre of year-old plants was a magnificent sight, with its great clusters of glowing, red berries among the green leaves, and in picking time help had to be hired. Mrs. Lea attended to the packing and marketing of the berries, and this first year the profits from the half-acre of strawberries enabled her to pay $100 and interest on the mortgage, with a small surplus to tide over the balance of the year.

There was no time for extra work during the summer and fall, as the care of the strawberry beds and her housekeeping was all that one woman could attend to, but one thing Mrs. Lea did. She subscribed for a good strawberry journal and studied up strawberry culture, and everything pertaining to the profitable marketing of the fruit, and she came to the second year better prepared in every way for her venture in strawberries. She did not feel quite satisfied with the prices she had received the year before for her fruit, and she determined to keep her eye open for the main chance, and to let no opportunity escape to make more money from her second crop.

SUNNY-BROOK FARM, HOME OF MRS. E. C. HARDY, RED CEDAR, WIS.

The second year her strawberries were a revelation to her less painstaking neighbors. The vines were loaded with great, luscious clusters, and people passing by on the busy thoroughfare often stopped to purchase berries, and in this way she sold many at better prices than she could command in the city market.

Early in the spring she had purchased a Jersey cow, which was pastured by a neighboring farmer, and every day during the strawberry season they reveled in strawberries and cream and strawberry short-cake. And to the strawberry short-cake was due a streak of good luck, or perhaps we might say two streaks of good luck, which fell to Mrs. Lea this second summer.

One day in the midst of the berry season a large automobile, with the usual perversity of these machines, broke down directly in front of the cottage. No amount of persuasion on the part of the men could induce it to move on, and at noon they were still tinkering perspiringly at the huge machine. Then one of the men appeared at the door of the cottage.

"We have broken down, and we are hungry," he said concisely, "Do you think you could give us a bite of dinner?"

"Why, yes," answered Mrs. Lea, hospitably, "dinner is just ready and if you will come right in you can eat before I call the strawberry pickers."

In a few moments the four men were seated at the table in the cool, pleasant little dining room, and were partaking of a real farmer's dinner of fresh garden vegetables, supplemented by coffee, strawberry short-cake and the most delicious Jersey cream. Evidently they had good appetites and enjoyed their fare, for Mrs. Lea served each with the second individual short-cake before they finished the meal.

As they arose from the table, one, an elderly, distinguished-looking man, turned to Mrs. Lea and said courteously, "I do not know when I have enjoyed a dinner as I have this one. Your strawberry short-cake and Jersey cream take me back to my boyhood days. Allow me to thank you for your hospitality to my friends and myself," and slipping a bill from his pocket he laid it on the table.

Mrs. Lea's face flushed. "You are very welcome to your dinner, but I do not wish you to pay for it. I do not keep a hotel," she said with embarrassment.

"Oblige me by accepting it. It is nothing compared with the enjoyment of such a dinner" he said decisively. "And if you would only put out a sign 'Strawberry Short-cake and Jersey Cream,' I am willing to vouch for all the guests you would be able to serve during the berry season," and touching their hats the men took their departure.

That evening Mrs. Lea took her son into her confidence as usual, and instead of picking berries Ray worked out a neat little sign, and in the morning it was tacked on the front porch. The first week there was a fair sprinkling of

guests, the second brought many more, and the third week the busy hostess had to hire help to serve her guests. Travelers, summer visitors and pleasure parties from the near-by city dropped in at all hours to partake of this unique treat, and the hostess enjoyed the experience quite as much as her guests. Several times the big red automobile stopped at the cottage, always with its four occupants, to partake of a regular farmer's dinner at "Strawberry Lodge" as they christened the little cottage, and at the end of the season Mrs. Lea found she was $60 to the good simply from serving her delicious strawberry short-cakes and Jersey cream.

The other streak of luck came one day when she was serving a party of ladies who had driven out from the city. She had set on the dinner table a little fancy pot of strawberry jam which she had made for home use, and the ladies had tasted it and were loud in their praise of the delicious confection.

"I wish I could get you to make me a winter supply; I would be willing to pay well for it," one of the ladies said to the hostess, and before she knew what had happened Mrs. Lea had promised to make each of the ladies a quantity of strawberry jam at a paying profit.

Other orders followed quickly, as these ladies spoke of their find to their friends, and before the second season had closed Mrs. Lea had established a business of manufacturing strawberry jam for people living in town, who hereafter were to be her regular customers.

When this second strawberry season was over Mrs. Lea was a weary and a happy woman. Beside the $60 from her short-cake venture she found she had sold $100 worth of strawberry jam, with unlimited orders for next season, and this was simply an aside from the great amount of berries she had sold in the city markets.

The third year she cut out the short-cake business and gave all her time to the making of her now famous jams, jellies and marmalades. She had built up a remunerative business along this line, as well as a preferred trade in the city markets, by careful grading and packing of her fruit. She could now command two or three cents more for her berries than her less careful competitors, and she had reason to feel that she was a reasonably successful business woman.

But of course we cannot expect something for nothing in this world, and the success that is really worth while does not come without a deal of hard work, and so there is no need to mention that Mrs. Lea and her son put in many days of hard, back-aching labor on their little strawberry farm, but it was a pleasant, healthful vocation, and they both enjoyed the work, and rejoiced in the success that crowned their efforts.

In five years the mortgage was paid, and the little home was all their own, and a pleasant and profitable business was thoroughly established. Since then Mrs. Lea has purchased a few more acres to enlarge her berry farm, and has remodeled Strawberry Lodge into a comfortable and commodious home. Ray is now in college and his mother is able to hire help to carry on her profitable little fruit farm.

When people comment on her success as a business woman, Mrs. Lea very modestly declares that it is all due to strawberries, and those who know her best reply, "Yes, to strawberries and grit."

Prof. Bailey on Selection

FREQUENTLY the matter of seed and plant selection is a stumbling block in the way of horticulturists. Just as in animal breeding the type sometimes is eclipsed by the beauty and fine form of an individual, and the former set aside by the breeder, only to bring him to grief later on because he deserted the real thing for a "sport," so do we see in horticulture the splendid history of a certain line of plants set at naught by the fine appearance, extra size, attractive color, or what not, of an individual plant that has no heredity and doubtless will have no progeny similar to itself.

Prof. L. H. Bailey of Cornell has something to say on this subject that goes to the heart of the problem, and lays down general principles that should be observed in all lines of plant breeding or production. He says: "When selecting seeds, remember that the character of the whole plant is more important than the character of any one branch or part of the plant, and the more uniform the plant is in all its parts, the greater is the likelihood that it will transmit its characters. If one is striving for larger flowers, for instance, he will secure better results if he choose seeds from plants which bear large flowers throughout than he will if he choose them from some one large-flowering branch on a plant which bears indifferent flowers on the remaining branches, even though this given branch produce much larger flowers than those borne on the large-flowered plant. Small potatoes from productive hills give a better product than large potatoes from unproductive hills. The practice of selecting large ears from a bin of corn, or large melons from the grocer's wagon, is much less efficient in producing large products the following season than the practice of going into the fields and selecting the most uniformly large-fruited parents would be. A very poor plant may occasionally produce one or two very superior fruits, but the seeds are more likely to perpetuate the character of the plant than of the fruits."

Related somewhat to this discussion is the remark of S. H. Warren, the veteran strawberry breeder of Weston, Mass., who said in The Strawberry for April (see page 81) that he had found the small tip-ender plants better plant-makers than the large and stocky plants. Sometimes the strawberry grower is greatly disappointed because his plants are small when set out, but he will find that if his plants come from a strain of heavy yielders, free from insect and fungous enemies, the size of the plant when it comes from the breeding bed will have nothing to do with its productiveness.

Strawberries Keep Their Color In the Wide-Mouthed, Sure-Seal, Air-Tight

ECONOMY JAR

Fruit can't spoil in an Economy Jar

STRAWBERRIES never fade when canned in the Economy Jar.

The Economy Jar is the only jar made that is really hermetically, positively, air tight.

That is the reason strawberries canned in the Economy keep their color.

The air that filters through a rubber ring or seeps under the edge of a heavy, bunglesome glass or zinc top, bleaches the berry, fades it to a muddy, forbidding color and robs it of its delicious, appetizing flavor.

The Economy Jar is wide mouthed. The Economy Jar seals itself with a gold lacquered cap (acid proof) that is as cleanly and as sure a barrier against the air and against bacteria as the crystal flint glass itself of which the Jar is made.

Use the Economy Jar according to the simple directions and your strawberries will come onto the table as plump and luscious and red as the day they were picked.

Send us the name of your dealer and state if he sells the Economy Jar, and we will send you free a booklet of recipes, containing the finest recipe for the canning of strawberries known to the culinary art.

KERR GLASS MANUFACT'RING CO.

265 Hoyt St., Portland, Ore.

Eastern Office, Dept. R, Philadelphia, Pa.

Some Things Worth Knowing

By James Charles

AS many find it difficult to keep strawberries in glass cans from the fact that the berries will rise to the top, leaving practically all the juice below, which is almost sure to cause fermentation, with a mold on the top at least that ruins the flavor of the berries, I send you herewith a way to obviate this difficulty.

Wash and prepare the berries as for any other way for canning, placing enough in the vessel to be sure of having enough to fill, say, a quart can after they are cooked. Then pour a teacup of granulated sugar over them and cover vessel to keep all the heat and steam in until the sugar is dissolved, over a slow fire, or with asbestos lid under vessel to prevent scorching before the sugar is all dissolved. Of course, the water must all be drained off after washing the berries before putting them on to cook. Then, just before taking them off to can, mix one-half teaspoonful of corn starch in just enough cold

water to make it about the consistency of thin cream and stir in the kettle of berries just enough to get the corn starch solution all through the fruit, being careful not to mash the berries. Let it thoroughly boil, then promptly can, filling can to overflowing so that no air is left in the can. If Mason jar is used, be careful to tighten cover occasionally as fruit cools. You will find the berries will be held evenly all through a thick or almost jellied juice and they also retain their color and true berry flavor, and no taste of the corn starch is perceptible. Keep cans in a dark closet. Corn starch used in a similar way in cooking prunes for table use makes them much richer.

Please pardon a correction in your quotation on first page of cover of your excellent magazine. "Fruit" should be substituted for "thing." It was Henry Ward Beecher who said: "The Lord might have made a better fruit than the strawberry—but He never did." Of course the woman that He made to help Adam raise strawberries in his Eden patch (and "apples,") was a higher creation than the strawberry.

Richmond, Indiana.

We are under obligations to Mr. Charles for his valuable suggestions that will not fail to be read with interest and profit by our housekeepers, and especially grateful are we for his correction of The Strawberry's motto line. This for several reasons—one because we desire to have the quotation correct; another that the correct quotation is infinitely better English and truer to facts than the incorrect one. However, our correspondent's statement that Henry Ward Beecher is the author of the saying that "The Lord might have made a better fruit than the strawberry—but He never did," is not accepted by all of the authorities. One attributes the saying to Izaak Walton, the angling philosopher, another says that Thomas Fuller is its author, and the best authority we can find declares that the famous Dr. Boteler, the popular sermonizer of the seventeenth century said, "Doubtless God might have made a better fruit than the strawberry, but doubtless He never did." So it will be seen that the saying is quite ancient and comes from an excellent source.

SOUTHERN nurserymen will meet on Lookout Mountain, Tenn., August 15-16, and talk "shop" for two whole days. The program is a long and interesting one, and the members are warned that no long-winded speeches will be permitted, but that five minutes will be given to everybody. This rule doubtless will be broken in a good many places, however. We note that one of the subjects to be discussed is, "What is the proper treatment of the strawberry for growing of plants?" This is a subject of importance alike to nursery folk and patrons, and calls for full and free discussion and an intelligent comprehension of the principles involved. The Southern Nurseryman s Association is a growing institution, and this year's meeting promises to be especially valuable. Orlando Harrison, Berlin, Md., is its president.

Reports From the Field

WHETHER there are great changes going forward in the meteorological world that disturb the equilibrium of things and give us more irregularities than our forefathers suffered from, is a matter we shall leave for the "oldest inhabitant" and the weather man to dispute about. That the removal of thousands of miles of timber—something which some day we shall recognize as a crime against both present and future generations—that this razing of the forests has had some considerable influence appears reasonable. But whatever may be true in this particular, the fact remains that the present season has been an unusual one, and reports indicate that serious results have followed a spring as remarkable for coldness in its early days as it was for its heat and drought later on.

Indiana, Illinois, Iowa, Ohio, Missouri, Kentucky and Tennessee—all these states report suffering and loss in the strawberry fields consequent upon the hot, dry weather of May and the early days of June. Michigan berries that were slow in developing early in the season came on with such rapidity that they were on the Chicago market—in limited quantities, to be sure—May 30, fully one week ahead of the record, we believe. One result of these conditions, however, was the stiffening up of prices all along the line, which in some measure compensated for shortage in crops.

The loss was not confined to the crop, however, as reports come from all over the field of the difficulty experienced in getting new-set plants to take a firm grip on the soil. The lack of winter precipitation is held to be responsible for this condition.

IN our neighbor, whoever he be, lies hidden or revealed a beautiful brother. The neighbor is just the man who is next to you at the moment. This love of our neighbor is the only door out of the dungeon of self.—George MacDonald.

Why Jones Fixed the Fence

JONES kept fowls; his neighbor Dixon had a promising garden. Jones did not think much of Dixon's garden, and Dixon's opinion of Jones' fowls would not appear well in print.

The fence was dilapidated, and a long, wordy warfare had waged as to who should repair it. Dixon had repaired it last; but Jones declined to do so now. His chickens were getting too plump on Dixon's good garden stuff for him to interfere.

Then the gardener resorted to strategy. He erected a row of nests in his garden, put a nest-egg in each and after a few

STRAWBERRIES NEXT A FIELD OF COWPEAS, WHERE NEXT SPRING PLANTS WILL BE SET

days the hens found them out. Then Dixon put a nice "New-laid eggs for sale here" notice in his window, and a beautiful basket of eggs beside it. Within two hours of Jones' reading the notice the fence was repaired.

How I Encouraged Home Strawberry Culture

By DeWitt C. Wing

IT is a reflection on the intelligence and enterprise of the American people to classify strawberries as a luxury. Nothing is a luxury which easily can be grown in almost every township in the United States. Strawberries should be a sure and regular crop on every farm. Every villager with a bit of soil ought to grow a patch, and there are many city dwellers who could derive health, recreation and gastronomic enjoyment from small plots devoted to this luscious, cheer-giving fruit.

I love strawberries in the sense that I love poetry; and I love them as an article of food. A well-grown specimen of this fruit, matured under favorable conditions, appeals to the esthetic sense as well as to the palate. It is invested with poetry, art and an ambrosial tonic which promotes health.

A shapely, finely-colored strawberry of big-mouth size is a beautiful object to behold. To produce this kind in abundance is an exceedingly agreeable task to one who looks beyond pecuniary considerations in working with animals and plants. An ill-shaped, sickly strawberry, lacking color and constitution, is one of the most depressing forms upon which a fruit grower may look. It is inexcusable to grow many of this sort, yet this is the kind which makes up the bulk of the crop grown on farms for home use.

City people get strawberries; country folk eat the culls. This situation so impressed me early in my career as a farmer that I resolved to reverse it so far as our family was concerned. We usually had a "mess" or two of berries each season, but they were tasteless, apologetic masses of pulp and so insignificant in comparison with some which I had seen at the fruit stores in a small city that I became secretly disgusted with the whole berry family. Our "luck" with the fruit was better than our methods of growing it, however, so I decided to make another effort, following the advice of a practical grower who had described his methods in a horticultural journal.

Get the soil right: that was the first step advised by my long-distance mentor. Our garden was a deep, sandy loam with great power to absorb water and heat. It was an ideal home for the strawberry, according to the books—and the books were right. I wrote to the professor of horticulture at our state experiment station and asked him what varieties he thought would do well in my locality. He recommended Bubach, Haverland, Crescent, Sharpless and Warfield, and some others which I do not now recall. I remember the Bubach above all others: it was my favorite both as a grower and producer. About one-fifth of an acre was set to plants in the spring. The ground had been plowed to a depth of nine inches the preceding November. During the winter the thin mantle of subsoil weathered as intended and before plowing the plot again early in the spring a dressing of well-rotted stable manure was applied. The effect of this fertilizer was not pronounced until the following year. When I was applying that odoriferous material I could at the same time imaginatively smell delicious strawberries. Three harrowings put the soil in fine tilth for the plants, which were set about three feet apart each way.

None of our neighbors grew strawberries; farmers as a rule regard nearly everything as a luxury which requires a little more attention than hogs, corn,

FIELD OF J. R. MORRISON, BURNT PRAIRIE, ILL.

wheat and cotton. They live on pork, cornbread, molasses, potatoes and coffee when all the healthful delicacies of the land are within their easy reach. It is beyond comprehension that so many of us restrict our diet to the prosaic staples named. A farmer's table should be literally burdened with fruits of his own growing, and I would always see to it that the strawberry had proper representation. Now when my plants had begun to take hold of the fat soil and give evidence that they had started toward the fulfilment of their mission, the berry bed and its owner were roundly ridiculed by the neighbors who frequently called (perhaps for this very purpose.) Of course they predicted a failure, but fearing I might actually grow some berries they sometimes added that "no farmer can afford to 'monkey' with such things anyway."

One of the most difficult obstacles to overcome in doing something worth while on the farm is the stupid opposition and advice of one's neighbors. But they are helpful nuisances, and we could not be happy without them. I had worked out a plan whereby every one of ours should be converted to the practice of growing strawberries.

It were a waste of space to go into the details of my work following the setting of the plants; I had no patent methods and took no short cuts. The entire process was exceedingly ordinary and simple. This is why I would emphasize that the strawberry is not a luxury. My plants fruited generously. The Bubachs were immense and beautiful; the Warfields were a close second. The other sorts gave creditable account of themselves, and I was justly proud of my achievement.

Being a "crank," I must play the part. I secured twenty strawberry boxes, quart size, and filled them with select berries. I then wrote twenty notes, personal to each of as many neighbors, and placed them in addressed envelopes bearing the printed name of the grower and his farm and slipped an envelope in each box. A boy in a runabout was then commissioned to distribute the boxes. It took him a day to make the trip and present twenty of my neighbors with this educational fruit. In the notes I used this language:

"Please accept this box of strawberries wtih the compliments of the grower. It was fun to raise them and it is a pleasure to give them away. I hope you will grow a patch next year. I'm ashamed to think that I never grew any before. Are we farmers making the most of our opportunities? Let's grow some of the good things and learn how to live. Try strawberries anyway. Pardon my audacity and forgive me for tantalizing you with such a meager quantity of berries. I wish I could send you a bushel."

Some of the recipients of these gift boxes declared me crazy and for that reason did not acknowledge the donations, but others were more charitable. My plan was a success; within three years I believe every farmer in the neighborhood had a patch of strawberries. Each farmer, therefore, became a wiser and better man. We had an abundance of strawberries every year thereafter, and inevitably began to grow many other varieties of fruit. One step compels another.

The strawberry is a civilizer. It refines and cultivates. It brightens the home. It helps to grow strong children with sunny dispositions. It develops a love for nature. It is fruit for the gods.

Chicago, Ill.

AS ye spray, so will fruit be given unto you abundantly, says Farm, Stock and Home. Strawberry growers may well accept this wise suggestion as particularly addressed to them. Followed consistently, it may insure them large success.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

THIS is the first issue of the second half of The Strawberry's first year, and as we look over the experiences of the past six months, we feel a sense of gratitude to our fellow-members in this school of ours for the inspiration their generous words have given us. Unlike the teacher in the school-room, we are not privileged to meet face to face with the members of the school, yet we have received from the kindly, cheery words of many of them quite as much satisfaction, perhaps, as does the teacher in the little red school-house or in the big city building devoted to education, from personal contact with his pupils.

Here comes a fresh and breezy note from far-off British Columbia: "The June issue is a 'Cracker-Jack.' Wish you would send some sample copies to my friend —— ——." And a New York clergyman writes: "The June number came today. The Strawberry seems to improve with each succeeding number. I find myself anticipating its arrival, notwithstanding my table runs over with periodicals of all sorts, religious, secular, scientific and special. The Strawberry is a beauty and a winner every way. Success to you."

Dollars are important; they supply the materials necessary to the publication of the magazine. But you couldn't pay us a good many dollars and be privileged to deprive us of the pleasure and gratification such messages bring. They assure us that the efforts we are putting forth in behalf of better methods and more good fruit in the strawberry world, no less than for the building up of our friends' best business interests, are appreciated and that our suggestions are being followed to success. Let us all, every member of us, see that we do our part to make this work more effective still

A. E. S., Chippewa Falls, Wis. Can one raise plants the first year, if no berries are allowed to form, or is it better to keep off all runners as well as berries the first year? 2. Will I have more and finer berries if I never allow the runners to form? 3. How many seasons will the plants bear? Would it be better to get a fresh supply of plants than to try and raise plants from what I have?

1. If you intend to raise fruit it will be proper to allow each mother plant set this spring to make from four to six runner plants. Layer these along in the row, and after they take root all the rest of the runners should be cut off. This is what we call restriction. Every time you cut off a runner the plant from which that runner comes will gain more strength, and this in turn will assist in building up a heavy crown system. The crown produces the buds which makes the big crop of berries the following summer.

2. A few varieties may give larger berries by keeping them in hills and preventing runners from growing. But most varieties will produce just as large berries and many more of them in single or double-hedge rows than they will in hills.

3. Two profitable crops may be taken from a bed of strawberry plants before it is discarded.

F. B. M., Piqua, Ohio. I send you under separate cover a berry plant, having blossoms and berries, the name of which I have lost. Can you tell me what it is? Shall set about three acres to this variety if I may learn its correct name.

It is rather difficult to describe a variety from a plant that has come a long distance, but as the plant you have sent us has berries attached, it is easy to discover its identity. This plant was taken from the Clyde variety, which has proved to be valuable in most localities. It is a strong pollenizer, and you will make no mistake in setting largely to them.

J. F., Bliss, N. Y. I notice about my plants some small insect, bright red in color, and about as large as the head of a pin. Will they harm the plants?

From the description you have given us of this insect, we are led to believe that it is the little red spider. They congregate on the lower leaf surface, spinning a very fine protective web, and suck out the juices of the plants. They are distantly related to ordinary spiders and, like them, have, when fully developed, four pairs of legs. They multiply beneath their silken webs where one may find colonies of individuals so small as to be scarcely visible to the naked eye, in all stages of growth. The young have but three pairs of legs. The egg is very small and nearly colorless. The infested leaves take on a yellowish hue, and many of them finally drop off. Now for the remedy: The red spider flourishes best in a dry atmosphere. It is seldom troublesome where the soil is saturated with moisture. The plants should be sprayed with soapsuds, tobacco tea, or kerosine emulsion, or they can be dusted with fine tobacco powder or insect powder, as soon as the plants show signs of the presence of the pest.

S. A. S., Mediapolis, Iowa. Please advise me how to get rid of the ants that infest my strawberry plants. How shall I spray them? Give me directions for making the spraying solution by the gallon, so that I may know just what I shall need. I have wide paths through the garden and the ants are there in large numbers.

The presence of ants about your plants indicates that there are plant-lice working about the roots of your plants. We never have found any spray material effective in dealing with the ants. One of the best preventives is thorough cultivation and hoeing. Ants always prefer to work on ground with a hard surface. This is why you will find them so numerous in your garden paths, while cultivating the ground disturbs them so much that it drives them to other fields. Another preventive is to dip the strawberry plants in a tobacco tea before setting them out. Full directions for this were given in April Strawberry.

A. E. B., Center City, Minn. Please tell me through The Strawberry how I can put a five-acre piece in the best possible condition for strawberries next spring. The soil is black loam with clay subsoil; it was fertilized with manure and planted to potatoes and the year after it was seeded to clover and timothy with wheat as a nurse crop. This crop averaged twenty-eight bushels to the acre, and it has been cut for hay now for two years. After the hay is cut this year I intend to plow it up for strawberries next spring.

As your soil is black loam with clay subsoil, be careful and not use manures too freely, as soil of this kind generally contains a large amount of nitrogen and is apt to produce large vigorous plants without employing fertilizers. As this land is now in hay, and cannot be broken up in time to grow any leguminous crop, it will be best to break it up after the hay is cut and sow to turnips, and if the seed is not too thickly sown there will be a good profit in this crop. Then in the winter this ground could be covered very lightly with manure—about eight tons to the acre. Next spring disc this ground rather than replow it, as the disking will keep the sod on the under side and thus prevent it from interfering with cultivation. The disking will also keep your soil more firm than if turned up before

setting to plants It always is best to keep black loam packed quite firmly, as this will assist in holding moisture and preserves normal conditions for the bacterial germs to work under. We believe that by following these suggestions your soil will be in ideal condition for plants next spring.

S. S. W., Chittenango, N. Y. Is it better to put phosphate on in the mark when setting plants, or wait till early next spring and hoe the plants after putting on the phosphate?

We always have found it better to apply the phosphate in the spring before the plants are set. This season we made a deep furrow where the rows were to be, then scattered the commercial fertilizers lightly in these furrows, after which we worked it thoroughly into the soil with the five-tooth cultivator. After this was done we rolled the ground for the second time, then ran our marker directly over where the furrows had been made. Following this the plants were set. Please note that all commercial fertilizers should be handled in this way—that is, thoroughly incorporated with the soil before the plants are set.

H. S., Cheyenne, Wyo. How can I protect my strawberry patch, six rows fifty feet long, from hail, during the blooming and fruiting season? Hail storms are frequent here at that time.

There is no practicable way to protect the strawberry from hail, and this is true of any crop grown. Crops must have sunshine and air, and any obstruction strong enough to withstand hail would not admit these to the plants

H. P. H., Shelby, Idaho. I wish to commend your paper. It certainly fills the object for which it was gotten up, and I eagerly peruse its pages for information. I have already had answers to questions which I intended to ask through your correspondence department, but one or two questions I wish to ask which I hope you will see fit to answer through your valuable paper. 1. I have one patch of strawberries which has borne one year, but has become so matted that I fear the berries will be rather small this season. Could I not thin them out, or would it do to plow up between the rows so they would form a single-hedge row? Would the plants from this patch which I would take out, do to set out a new patch with?

It was a mistake to allow your plants to mat thickly, but as it is done the best way out of the difficulty is to leave the plants as they are. To disturb plants near fruiting time is not a good thing to do. We have always discouraged the idea of taking plants from the fruiting bed because you are sure to disturb the roots of the plants that are left for fruiting when taking up plants for setting. Another objection to this is that one is too apt to take the alley plants, which never are as good as the better developed plants. It is certainly bad practice to take plants from a bed that has borne one crop of fruit, and this for several reasons. One is that the plants are weakened by pollen exhaustion, and second there is danger of transferring insect pests or fungous diseases with the plants. This practice has encouraged infection in localities where plants have been grown for any number of years. Therefore, our advice is to leave your bed just as it is until the berries are picked, and as this will be the second crop, the vines should be mowed off and when dry burned over, then broken up and sowed to some other crop. Where this is done there is little danger from dangerous insects or fungi.

W. B. E., Fort Madison, Iowa. For irrigating strawberries or any fruit or vegetables is it safe to use the water pumped out of a well or drive well and flood it down between the rows, or is it too cold?

Irrigating should be done by running a trench in the middle of the space between the rows and flooding into that trench, allowing the water to seep through the soil to the roots of the plants. Never flood the surface of the strawberry bed with water. This will answer your question with regard to the temperature of the water, as the water run in a trench of this kind will be warmed by the sun long before it reaches the roots of the plants. However, the best way to conserve moisture in the soil is by persistent stirring of the surface of the soil with the rake or hoe. This breaks up capillary attraction, forces all the moisture to come up through the plants and, except in rare cases, will preserve a sufficient amount of moisture in the soil without recourse to irrigation.

W. E. C., Ingersoll, Ont. Is liver of sulphur the same as common sulphur, flour of sulphur, etc?

No, liver of sulphur is a preparation for use in prevention and cure of mildew, and is most excellent for that purpose. Your druggist should be able to get it for you.

G. J. K., Norwich, Conn. I am a subscriber to The Strawberry and got my dollar's worth of information from the first number and am eager to get more. I read every word in it. I am just starting in strawberry culture and would like to know if you advise tobacco stems for winter protection or mulching?

We never have used tobacco stems as a mulch, but in our judgment it would not serve the purpose with any degree of satisfaction, as when the berries are ripening they would lie on the tobacco and the ripening fruit would be almost certain to absorb some of the tobacco flavor, which might not be acceptable to your customers. Pleased to know that you are getting so much good from The Strawberry.

W. J. K., Macleay, Oregon. Will it be possible to cultivate strawberries successfully on a hill sloping east, and should the rows run east and west? 2. Will plants propagated for two seasons, in order to obtain enough sets for several acres, be damaged in their producing qualites or tendencies? 3. Is it common that fruit buds are out when plants are taken up for resetting? I reset them about April 15.

1. An easterly slope will give good results with strawberries when the rows are run north and south, as this will overcome the danger of washing during a heavy rainfall.

2. The plants taken from the propagating bed the second year would not be equal to the first year's runners. See article on the propagating bed in June issue for reasons why.

3. Plants always bloom at the proper season, and in your locality plants undoubtedly will be in full bloom April 15. This will not injure the plants to any great extent, provided you pinch the buds and blossoms from the plants before setting out. It always is best to set out plants while they are dormant or at least before they bud out.

R. L. B., Creston, B. C. When my plants came I trenched them in at once in damp black loam, and will keep them there until they make a start, when I shall set them out in proper place. Will you tell me if I did right? 2. Do you think the hill system—say 30x18 inches—the most profitable way to set out strawberry plants? Or do you think the double-hedge better?

1. You followed the proper method in trenching or heeling in your plants, provided your soil was not ready for their permanent home. One never should heel a plant in unless to hold them in good condition until the soil is ready, as it always is best to get the plants set out as early as possible. However, we often have kept heeled-in plants for several weeks, and when set in their permanent home 95 per cent of them grew and gave large results. Twenty new varieties have come to us from France this season. They arrived in February when our ground was frozen solid. We placed a large box in a building and secured soil from under a shed where it was not frozen, and the plants were heeled in in this box, and kept there until April 5, when they were set out; and a prettier lot of plants it would be difficult to find today, though they were a pretty sickly looking lot when they went into the

ground. Their appearance, however, did not keep us from giving them needed care and attention, and we look for fine results from them.

2. We have tested both the hill and the double-hedge systems, and there is no question but that most of the varieties will give larger results by the single or

STRAWBERRIES IN CALIFORNIA- No. 1

Valley and mountain make a picturesquely beautiful site for the home of the grower, which is located between the city of Los Angeles and the ocean

double-hedge row than when set in hills. Such varieties as Parker Earle will thrive best in hills because it stools up so abundantly that it requires plenty of room in which to make its natural growth.

W. D. H., DeTour, Mich. There is a small fly that is doing a great deal of damage in both the vegetable and flower gardens. It eats off the leaves of the plants as soon as they come up. All the beets are eaten up and nothing is left of the sweet peas.

It is hardly probable that it is a fly that is doing the damage. We think the enemy belongs to the beetle family. One reason we think so is that the beetle is very fond of beets. However, your description is hardly sufficient to form a clear judgment. But as it is an eating insect, it may be controlled by the use of Paris green. Any leaf-eating insect may be destroyed by the use of an arsenical spray on the leaves, as they eat the foliage, while a sucking insect must be killed by contact with the spray.

M. S. S. Elida, Ohio. I set plants of the Warfield variety, using Excelsior on one side and Pride of Michigan on the other side, with the third row from them, Senator Dunlap. Should I get good results from setting them that way without the Senator Duhlap?

The Excelsior would supply the early pollen for the Warfield, and Pride of Michigan would amply supply the later pollen, and you would secure perfect mating without the presence of the Senator Dunlap. Flanking your pistillate—Warfield—with an early bisexual and a late bisexual you not only have secured perfect mating for the pistillate variety, but a long fruiting season for it as well.

H. E. R., Eugene, Ore. I set some plants this year many of which, owing to conditions that were unavoidable, failed to grow. I wish you would tell me how to fill in where the plants are missing. 2. Is ground bone good for fertilizing the soil for strawberries?

1. The best thing for you to do is to take good care of all the plants that are living, cultivate and hoe them often, which will aid them to vigorous growth and put them in good condition to send out lots of strong runners. And if you will lay soil on the runner wires just back of the nodes it will hold them to place and encourage the young plant to take root immediately. Early in the fall after a heavy rain, these young plants may be taken up with a trowel or spade and transferred to the vacant places in the bed. In doing this work you should leave a large amount of soil on each plant, which will prevent checking of growth as a result of transplanting. By following this plan you should have well-filled rows before winter sets in. While we do not advocate fall setting, it is better to do so in this case than to have so many vacant places in the bed. These fall-set plants will yield some berries the following spring and also will give you a continuous row for the second crop.

2. Ground bone contains a large percentage of phosphorus, and makes a good fertilizer for strawberries when used in connection with potash. About four hundred pounds of bone meal and two hundred pounds of muriate of potash will be sufficient for each acre.

H. M. S., Omega, Okla. I wish to set about two acres of strawberry plants next spring and would like your advice on the preparation of my soil. This land has been put to wheat for several years. After harvest I will put the land to cow peas. This fall I will manure it heavily before plowing, and in the spring manure and plow again. 2. As my nearest market is about twelve miles away what varieties should I grow?

1. We could hardly improve upon your method of preparing your soil in the main, but would suggest that you leave out the second dressing of manure which you purpose to put out in the spring before setting plants, as too much manure tends to heavy foliage at the expense of fruit. The cow peas and one coat of manure will furnish plenty of humus and plant food to produce a big crop of berries.

2. As you have a long distance to haul your berries, it would be well to set varieties that produce firm fruit, such as Excelsior, Texas, Warfield, Aroma, Gandy and Klondike. Even such varieties as Senator Dunlap, Haverland, Brandywine or Sample could with safety be hauled twelve miles. All these varieties produce firm berries provided they are picked before they get over-ripe. A good spring wagon is an essential in hauling berries so great a distance to market.

E. G., Cohocton, N. Y. Would I receive any benefit by sprinkling phosphate around new plants set out this spring?

We should not advise the sprinkling of phosphate around your plants with any view of getting benefit this season. Phosphorus is unlike nitrogen in that it does not become quickly available as plant food. If you were seeking quick results it might be well for you to give your plants a dressing of nitrate of soda—about forty pounds to the acre—just as soon as growth starts, and another forty pounds just before the buds open.

Mrs. E. S., Snowflake, Ariz. What is the cause of our strawberries withering after being fully set and nearly grown? All that touch the mulch go first, while some on the same bunch that are up seem to develop. 2. What is the cause of the seeds being taken off of many that are nearly ripe on the side that is next to the mulch? 3. Is there any disease that causes the foliage to look pale? The Strawberry is a welcome visitor and we hope through its teachings to succeed in raising this most delicious fruit.

1. The symptoms you name in your letter indicate that your plants are suffering from excessive heat and dryness of the soil. The berries that lie on the mulch are heated both by the sun's rays and by the stored-up heat in the ground, the straw acting as a reflector.

2. You do not state whether the seeds were once formed and then removed or

STRAWBERRIES IN CALIFORNIA No. 2

Another view of the same patch. This photograph was taken January 16. The grower writes: "The picking trays hold six boxes 4x4x2 1-2 inches. The price at this date was 25 cents a box, 'and send more if you have them.'" A charming winter experience.

whether the berry failed to develop seeds. If the latter is the case, it is because they lack proper pollenation; that is, they were

not set near some bi-sexual variety which bloomed at the same time.

3. Lack of potash in the soil would cause the foliage to look yellow and sickly. We think the pale foliage to which you refer is due to lack of moisture.

E. McT., Hatzic, B. C. There is a little black insect doing considerable damage to the foliage of my plants. There also is a small grub one-eighth to one-fourth inch long feeding on the roots. What are they and what is the remedy?

The black insect of which you speak belongs to the beetle family and the grub is their larvæ. The beetle is a very lively insect; it hibernates under decayed grass and other rubbish. It is easily controlled by spraying Paris green or any kind of arsenate. They feed upon the tender leaf-tissues, eating the leaves full of holes. By killing the beetle you will soon destroy the source of the larvæ.

J. J. B., Wirt, Ind. Would it in any way prove injurious to this spring's setting of plants to permit them to put out one or two extra runners more than the number for either single or double hedge row, then set those plants either late this fall or early next spring?

It would not injure the mother plants to make one or two extra runners after either the single or double hedge row was formed. While we do not approve, as a general thing, of taking any plants from the fruiting bed, in this case it will do no great injury provided the extra plants are taken up the latter part of September and set in another bed. In doing this work take them up carefully with the trowel after a heavy rain, leaving quite a little soil on the roots of each plant. We always discourage fall setting because that is the season when the strawberry plant is building up its fruit-bud system, which requires much of the plant's vitality; but when plants are removed from one part of the garden to another the strain is not so great, of course.

F. M., Sussex, N. J. Will you please inform me in next month's Strawberry whether it would be safe to leave my one-year-old strawberry patch for another year or not? They seem to have a fair foliage, but have the appearance of being wilted; and the leaves are curling up, and the fruit stems and leaves have brown spots and appear as if they were stung by insects. Holes are eaten in the leaves. Vines are loaded with fruit, but berries do not ripen. What shall I do?

The leaves you send us are affected with mildew, which is a fungous growth and has a tendency to curl up the leaves, giving them the appearance of suffering for moisture; it also affects the stems by making spots. If you will take a magnifying glass you will see that there is a small cobweb-like substance on all plants affected in this way. This growth spreads by spores and you should follow the same method described in the answer to G. W. D., Winneconne, Wis. There is no reason why you should not get another crop from these plants, because when you mow the plants off and burn over the bed, it will destroy the fungous spores, and by spraying the fruiting bed next spring with Bordeaux mixture just as growth starts and again before buds open, you will prevent the mildew from making a second attack.

D. B., Wheeling, W. Va. Will it be all right to spray my new-set plants with Bordeaux mixture after I remove my buds and bloom? 2. Will it be a good plan to cut the first runners from my mother plants?

It will be all right to spray your young-set plants with Bordeaux mixture after buds and bloom have been removed. It would do no injury to spray young plants while yet the bloom is on, because they are not to be permitted to develop fruit. When we advise against spraying the plant when in bloom we refer to the fruiting bed and not to young-set plants.

2. It is a good idea to cut off the first runner plants, as this is sure to strengthen the mother plants and get them in a vigorous condition and capable of sending out fine strong runner plants.

H. A. T., Doylestown, Pa. Most of the Pennsylvania soils are sadly in need of humus; it seems wasteful, therefore, to burn the mulch, as generally recommended, at any time in the life of the strawberry plantation. Can not the injurious insects be held in check by clean, systematic culture, supplemented, if need be, by spraying? 2. In a rotation in which strawberries are the chief crop, how long a break is desirable before again setting strawberries? What crops are best adapted to such a rotation? 3. Stable manure in this section is expensive—$2 per ton, and hauling additional—and cannot always be obtained then. If a high grade of fertilizer is used freely and green crops frequently plowed in to supply humus, can strawberry growing be prosecuted as profitably as when stable manure is used? 4. What leguminous catch-crop is recommended other than crimson clover?

As your soil is so badly in need of humus, we would advise you to turn the mulching under after fruiting time. That is, when your bed is ready to be discarded. If you are preparing a bed of plants for the second crop, then only part of the mulching should be left on and cultivated into the soil. The balance can be removed and scattered over another piece of land and turned under. While this is not the best way, yet it is possibly the best in your locality, unless you can grow cow peas or clover to furnish humus. When we recommend the plowing in of mulching, we also advise clean cultivation, as this will help to destroy insects and fungi. No bed of strawberry plants should be allowed to fruit more than two years. Longer than this generally is done at a loss. A new bed should be set out every spring so that you can keep a continuous fruiting bed after the old ones have been exhausted. Even if stable manure does cost $2 per ton, it will prove to be a good investment and of greater economy and profit than the method you suggest. Five or six tons scattered over an acre will make a big difference in the yield of fruit. We use forty-five carloads each year and it costs delivered on the farm $60 per car. The cars average about thirty to thirty-five tons. Any leguminous crop turned under will give good results with strawberries, if commercial fertilizers also are used in connection. Cow peas or common field peas will serve the purpose.

T. W. M., Redfield, Ark. I have a piece of ground 115 feet long and in April I set it to strawberry plants, as follows: One row Texas, one row Warfield, and one row Dunlap. The rows are four feet apart and the plants are eighteen inches apart in the rows. I have cultivated exactly as outlined in The Strawberry, and the patch is beautiful. Will you please give me some suggestions as to how to handle these plants for single and double hedge row?

You have set your plants properly, as we note you have made the rows four feet apart and placed the plants eighteen inches apart in the row. As they are only eighteen inches apart, each mother plant may make two runners for the single-hedge row, or four runner plants for the double-hedge row.

C. E. S., Colmesneil, Texas. When should plants that were set out April 18th be allowed to make runners? Some of the plants have over twenty leaves and some not over four or five. 2. When and how should I use commercial fertilizer on plants that were set out this spring on poor ground, which had been given a dressing of commercial fertilizer?

Your mother plants which have a large foliage are now ready to send out good strong runners. We note that you say some of the plants have only four or five leaves. For such as these it will be best to remove the runners until the mother plant builds up a larger vegetative growth.

2. It always is best to use commercial fertilizers before plants are set so that they may be thoroughly incorporated with the soil. If commercial fertilizers are applied after the plants are set out, it is rather difficult properly to mix it with the soil. If you can secure well-rotted

stable manure and scatter it lightly between the rows it will give much better results than will any commercial fertilizer, as cultivation will mix it thoroughly with the top soil and the rains will wash the leachings so that the roots will feed upon them.

⚜ ⚜

G. W. D., Winneconne, Wis. Inclosed are some strawberry leaves. Please tell me in The Strawberry what it is that affects them, and what I shall do to stop it on the plants that I set this spring.

The leaves which you send us indicate that the plants are affected with rust. If these plants are in the fruiting bed, after fruit is picked, mow off the vines and then burn over the entire bed, as rust is a fungous disease and fire will destroy all the spores and thus prevent a severe attack in the future. Next spring it will be a good plan to spray your fruiting bed with Bordeaux mixture, repeating this just before the buds open.

⚜ ⚜

H. D., Heyworth, Ill. Have a patch of Bismarcks that has borne for three years. I think it long enough, and after I pick the present crop I shall mow it, burn it over and plow under, and then treat the soil as follows: Plow it up and sow corn for mulch for another berry patch, and let the corn grow until frost comes; then mow it and break the ground and let it lie until spring, when I shall put on some manure and plant to potatoes; then when I dig the potatoes, plow it up in the fall, and the following spring put into strawberries. Will that be all right?

In the main, your plan is ideal. But in the fall after the potatoes are dug, sow to rye at the rate of five pecks to the acre; then during the winter when the ground is frozen scatter barnyard manure lightly, and in spring work thoroughly into the soil.

⚜ ⚜

A. E., Youngsville, Pa. Some of my neighbors tell me that mice or moles will destroy the plants under the mulch. Is this true? 2. Is it now too late to sow cow peas, and how many should I sow to the acre? I want to plow the cow peas under this fall. Should I then sow to rye and turn the rye under in the spring before setting plants? I cannot praise The Strawberry enough—so much help for a new beginner.

1. We never have heard of mice or moles injuring strawberries under mulching.

2. We have sown cow peas the latter part of May and also the middle of July, and the late-sown always proved the better. This is because the cow peas thrive best in real hot weather and if sown early while the soil is cold, it nearly always results in a stunted growth. Last year we sowed one field of peas the 1st of June and about the 10th of July sowed another field, and the latter sowing made a much heavier vine and also devloped more nodules on the roots. They also were entirely free from weeds and grass, while the earlier sowing was very foul.

3. It is an excellent plan to sow rye for winter cover crop. In your state the rye should be sown about the middle of September. This will give it time to grow to sufficient size to make a good mulch for the soil during the winter months. The rye serves two purposes—it prevents the ground from puddling and also takes up the plant food and holds it in reserve for the following crop. If the ground were left bare, much of this plant food would leach away and be wasted. In the spring before setting plants turn the rye completely under, and if you have young stock it will be all right to turn them out on the rye, either in the fall or spring, when the ground is not too wet.

⚜ ⚜

Mrs. M. E. L., Brooklyn, Mich. In June, 1905, I plowed under a piece of clover and timothy sod that previously had been well covered with stable manure, and sowed to cow peas. These were turned under and the ground sowed to rye, which in turn was plowed under this spring and the ground set to strawberry plants. Is the ground rich enough, and would you advise growing the plants in single or double hedge row? Would it be of any advantage to scatter fertilizer this season and work it in with cultivator and hoe?

The fact that your soil previously was in clover, then cow peas and rye, and well manured, it will be unnecessary for you to use any more fertilizer. There is no doubt you will get better results by the double-hedge row than by the hill method.

⚜ ⚜

J. W. R., Paducah, Ky. Would nitrate of soda, raw bone meal and tobacco dust be a good fertilizer for my plants? What is the best way to apply them?

We have had no experience with tobacco dust and do not believe it would be of particular value to the strawberry as plant food. Raw bone meal contains a very large amount of phosphorus, which is of course, one of the essential elements of plant food. If you will look at the bottom of page 94 of April Strawberry, you will see how best to apply your nitrate of soda.

⚜ ⚜

T. P. W., Monett, Mo. Enclosed please find $1 for The Strawberry for one year. Tell me what you know of carbonate of lime. Is it any better than phosphate rock or ground rock? The carbonate of lime will cost me $2 per ton, and the phosphate rock $8 per ton. Which will be the cheaper to use, considering results?

Carbonate of lime is ground limestone charged with carbonic acid and is a soil stimulant, rather than a fertilizer—that is, it tends to make the plant food already in the soil more readily available, and this, of course, tends to exhaust the supply, while rock phosphate adds permanent strength to the soil, giving increasing returns for several years after applying. It should be your aim to make your soil permanently valuable rather than to seek for large immediate returns at the soil's expense. Thus it will be seen that the rock phosphate, or "floats" as it is commonly known, is by far the cheaper of the two and in every way more desirable.

⚜ ⚜

W. B., Los Angeles, Calif. May berries be cut off more than one time without injuring plants? I cut the tops off last August to get winter fruit. 2. Will they bear the same treatment this year? 3. I am keeping the buds off of the fruiting bed and setting two runners from each plant. Do they also need the fruit buds kept off? 4. Would they bear winter fruit without cutting off tops? 5. Do you think it necessary in this climate to keep the fruit buds pulled the whole season when plants set in January make big fine plants by the middle of May? 6. Will strawberry plants that are set in January bear fruit this winter without cutting off the tops? Have kept off buds all spring; plants are looking fine.

1. Yes.
2. Yes.
3. If you are keeping the buds off the year-old fruiting-bed you are making a mistake, as these are the buds that should give you the big crop of berries; but if these plants were set this spring, your course is the proper one. The young plants will not bloom until the proper time for fruiting, at which time they should be permitted to mature into fruit. In your latitude this probably will be late this fall.
4. They would bear fruit without cutting off top, but it always is best to mow the vines off and burn the bed over.
5. In your climate it would doubtless be safe to let the first bloom produce berries, as your plants generally are set in January and have the entire winter in which to grow. Of course, if any bloom appears shortly after the plants are set out they should be picked off.
6. Your plants which were set last January will bear a crop of fruit this winter without cutting off the tops. If we correctly read your question you mean to say that this will be the first crop they have borne.

Big Money in Squabs

Ready to sell when only four weeks old. Write for our beautifully illustrated **Free Book.** We teach you how. People all over the U. S. are making money with our **high class** birds, bred from stock of **known breeding qualities.** Why not **you?**

JERSEY SQUAB CO., GLASSBORO, NEW JERSEY
Squabs and strawberries go well together

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN,
Advertising Manager,
1603 Manhattan Bldg., Chicago, Ill.

SUBSCRIPTION PRICE:

United States and Canada - - $1.00
Foreign - - - - - - - 1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

JULY, 1906

OUR cover this month presents a scene of activity and interest in the great "national strawberry patch" of North Carolina, where more than 200,000 acres are devoted to the production of the delicious fruit and between ten and fifteen thousand men and women take part in the work. It is strikingly suggestive of the remarkable evolution that has gone on in the South during recent years, where the change from cotton to strawberries and other fruits and garden truck has so altered the outlook of the people, given them new hope and assured them a prosperous future. It is no less suggestive of the great change that has been made in the dietary of the American people and in their ability to buy and pay for fruits shipped so long a distance.

FROM every point of view these changes are gratifying, and to no one else in greater degree than the strawberry grower, present and prospective. They indicate a steadily increasing demand for this fruit in the years to come, and serve as a firm foundation for the enterprise that is to supply that demand. What North Carolina has done may be repeated in many other states, North as well as South. Let it be remembered that wherever prices have dropped below the line of profit this season it has been due to one of two causes or to both combined—poor fruit or faulty distribution, resulting in a glutted market. It still remains true that there is never overproduction of first-class fruit, but a ten-thousand town cannot consume a supply big enough for a hundred-thousand town. High-grade berries, properly distributed, always will command a price that yields a fair profit.

THE cover illustration is from a photograph taken for the Atlantic Coast Line Railway, and to W. J. Craig, passenger traffic manager of that company, we are indebted for its use. One who recently visited the North Carolina fields and studied the conditions under which the berries are grown there, notes two or three interesting features especially. He says the most extreme pains are taken in the proper use of special fertilizers for these berries and also to guard against any damage by frost. Along every few rows of berries there are open spaces where are long piles of what is known as the "straw" of the long-leaf pine, so abundant in that vicinity, while wide wooden forks are ready for use, so that when a frost alarm comes no time is lost in covering the berries with the slender needles of the pine, which form a wonderful protection against cold, and serve at once a double purpose by keeping the berries clean when used as a mulch.

COMBINING the practical things of life with the pleasurable is an art of which Frank B. White's Class Advertising Co., Chicago, is master. The gathering at the annual "round up" dinner at the Auditorium in that city on the evening of May 22 of agricultural newspaper representatives and the men who patronize their advertising columns to the total number of 575 was an event in the social and business life of each that will never be forgotten. The banquet was a charming affair, the addresses were apropos and the entire evening one of rare enjoyment. On the day following the guests were taken by tally-ho coaches to visit the great factory of Messrs. Crofts & Reed, at 842-850 Austin Avenue, one of the most successful and reliable manufacturers of perfumes, extracts, soaps, etc., in the world. From small beginnings this house has been built up to its present magnitude. How great this really is may be judged from the fact that they give $1,000,000 in premiums each year to their customers.

SEARS, ROEBUCK & CO., had extended an invitation to the entire party to luncheon, and after going through the works of Crofts & Reed the entire party was driven over to the largest mercantile house in the world, now occupying a plant of its own covering acres and costing many millions. A volume would be required to describe the interesting features of this establishment, which today is said to sell more goods at retail than any other house in the world. The central merchandizing building is the largest structure in the world devoted to retail trade, and about this vast edifice is grouped notable buildings, composing the electric light and power plant, the printing house, the administration building and factories. Beautiful parks and walks and drives are being constructed about the plant and the aesthetic and the practical go hand in hand, conditions highly appreciated by the 7,300 employes of the concern. Such sights as these only serve to increase confidence in the future of our country, and illustrate that growing trust among the people one of the other that makes possible such gigantic enterprises devoted entirely to the mail-order trade. Mr. White and his associates deserve and receive the hearty thanks of their hundreds of guests for such royal entertainment.

ARE you trying to capture that $20 cash prize The Strawberry is offering to the one who sends in the largest club of subscribers before July 20? Please observe it is a straight offer, without any other provisions than that the list you send in shall be the largest and that the last subscription shall be mailed from your postoffice July 20, 1906. Do not hesitate to take up the work because you fear you can't get the biggest list. You may win the big prize before you know it. And there's the $15, and $10, and $5 prizes as well, to say nothing of the generous commission allowed on each subscription taken. We want to add many thousands of subscribers to our list this summer, and a canvass of the strawberry fields will accomplish it. If you are not already in the field get to work at once. A long, strong pull, and the big prize may be yours!

HORTICULTURISTS who for years have heard vague and unsatisfactory discussion of the "Stringfellow method" of close-root pruning of orchard trees will be glad to learn that H. M. Stringfellow has put his method, as well as the results he has achieved, into a book that all may read. The title of the book is "The New Horticulture." It is published by Farm and Ranch Publishing Co., Dallas, Tex., and is a fine addition to horticultural literature. Whatever the merits or demerits of Mr. Stringfellow's methods, he has his say in this book, and it is an interesting and hopeful word he brings to those who grow tree fruits for market. The experiences he relates have abundant proofs of their authenticity, and none may be harmed by reading them and the conclusions Mr. Stringfellow draws. No man ever met Mr. Stringfellow who after the meeting doubted either his intelligence or his sincerity. When such a man speaks the world owes him a hearing, no matter if he runs counter to our accepted theories of horticulture and destroys many orthodox beliefs.

STARK TREES

FOR 81 YEARS HAVE MAINTAINED THEIR RECORD—HIGHEST QUALITY, LOW PRICE. We offer the only GENUINE STOCK of the superb new fruits: KING DAVID, DELICIOUS, BLACK BEN, CHAMPION and SENATOR Apples; BANNER, SUNRISE, Grapes; GOLD Plum, FAME Pear, etc. Finest stock in the U. S. of all leading commercial sorts. We PAY CASH WEEKLY and want more Salesmen. Price-list, etc. FREE.

STARK BROS LOUISIANA, MO. Rockport, Illinois Fayetteville, Ark. Dansville, N. Y.

---

1 CENT IS ALL IT WILL COST YOU to write for our big **FREE BICYCLE** catalogue showing the most complete line of high-grade **BICYCLES, TIRES** and **SUNDRIES** at **PRICES BELOW** any other manufacturer or dealer in the world.

DO NOT BUY A BICYCLE from *anyone*, at *any price*, or on *any kind of terms*, until you have received our complete **Free Catalogues** illustrating and describing every kind of high-grade and low-grade bicycles, old patterns and latest models, and learn of our remarkable **LOW PRICES** and **wonderful new offers** made possible by selling from factory direct to rider with no middlemen's profits.

WE SHIP ON APPROVAL *without a cent deposit*, **Pay the Freight** and allow **10 Days Free Trial** and make other liberal terms which no other house in the world will do. You will learn everything and get much valuable information by simply writing us a postal.

We need a ***Rider Agent*** in every town and can offer an opportunity to make money to suitable young men who apply at once.

$8.50 PUNCTURE-PROOF TIRES ONLY $4.80 PER PAIR

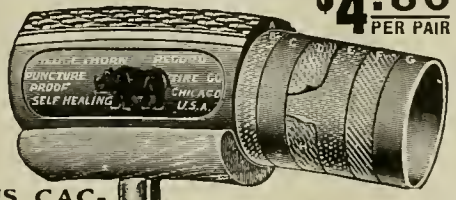
Regular Price $8.50 per pair. ***To Introduce We Will Sell You a Sample Pair for Only*** **$4.80** NAILS, TACKS OR GLASS WON'T LET OUT THE AIR

(CASH WITH ORDER $4.55)

NO MORE TROUBLE FROM PUNCTURES.

Result of 15 years experience in tire making. **No danger from THORNS, CACTUS, PINS, NAILS, TACKS or GLASS.** Serious punctures, like intentional knife cuts, can be vulcanized like any other tire.

Two Hundred Thousand pairs now in actual use. Over Seventy-five Thousand pairs sold last year.



Notice the thick rubber tread "A" and puncture strips "B" and "D," also rim strip "H" to prevent rim cutting. This tire will outlast any other make—SOFT, ELASTIC and EASY RIDING.

DESCRIPTION: Made in all sizes. It is lively and easy riding, very durable and lined inside with a special quality of rubber, which never becomes porous and which closes up small punctures without allowing the air to escape. We have hundreds of letters from satisfied customers stating that their tires have only been pumped up once or twice in a whole season. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially prepared fabric on the tread. That "Holding Back" sensation commonly felt when riding on asphalt or soft roads is overcome by the patent "Basket Weave" tread which prevents all air from being squeezed out between the tire and the road thus overcoming all suction. The regular price of these tires is $8.50 per pair, but for advertising purposes we are making a special factory price to the rider of only $4.80 per pair. All orders shipped same day letter is received. We ship C.O.D. on approval. You do not pay a cent until you have examined and found them strictly as represented.

We will allow a **cash discount** of 5 per cent (thereby making the price **$4.55** per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. We will also send one nickel plated brass hand pump and two Sampson metal puncture closers on full paid orders (these metal puncture closers to be used in case of intentional knife cuts or heavy gashes). Tires to be returned at **OUR** expense if for any reason they are not satisfactory on examination.

We are perfectly reliable and money sent to us is as safe as in a bank. Ask your Postmaster, Banker, Express or Freight Agent or the Editor of this paper about us. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a small trial order at once, hence this remarkable tire offer.

COASTER-BRAKES, **built-up-wheels, saddles, pedals,** parts and repairs, and everything in the bicycle line are sold by us at half the usual prices charged by dealers and repair men. Write for our big **SUNDRY** catalogue.

DO NOT WAIT but write us a postal today. **DO NOT THINK OF BUYING** a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it **NOW.**

MEAD CYCLE COMPANY, Dept. "J L" CHICAGO, ILL.

The Land of Big Berries

ARKANSAS and TEXAS

Choice locations along the

IRON MOUNTAIN ROUTE

Full information Free. Write to

H. D. ARMSTRONG, T. P. A., 88 Griswold Street, DETROIT, MICH.

ELLIS FARNSWORTH, D. P. A., 186 Clark Street, CHICAGO, ILL.

N. C. TOWNSEND, G. P. & T. A., ST. LOUIS, MO.

THE CRESCENT ENGRAVING CO

KALAMAZOO, MICHIGAN

Engravers, Electrotypers
Catalogue Makers

Landscape and Nursery Work
A SPECIALTY

Only house in the West making Steel Electrotypes. For durability and definition these practically equal original engravings

Samples and Estimates Cheerfully Furnished

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $5.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

Chas. S. Chase, Agent. 622 Chemical Bldy., St. Louis, Mo.

M. A. Hays, Agent 225 Dearborn St. Chicago. Ill.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

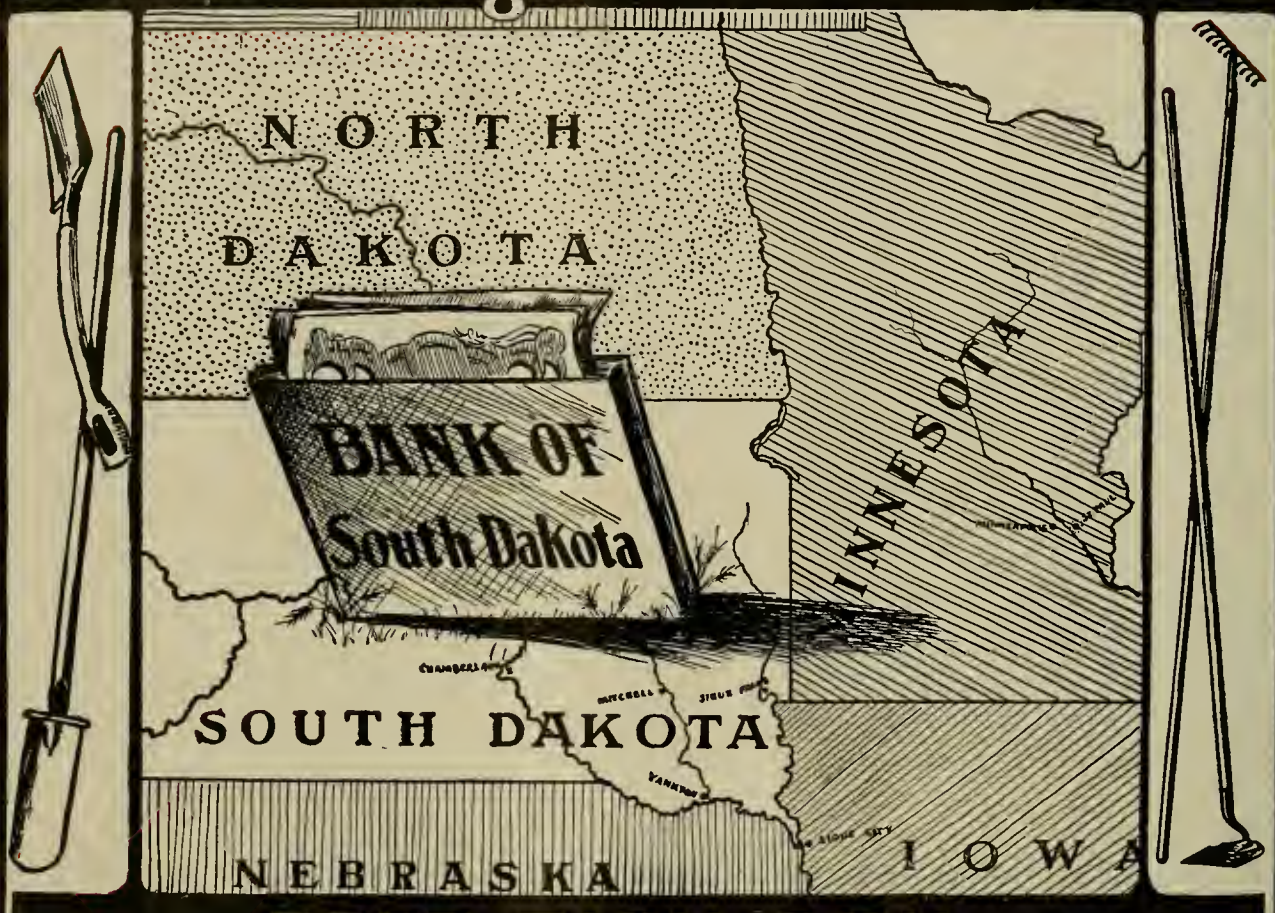
The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and **SPECIAL OFFER TO YOU.**

R. R. FISHER, Pub., Box 86, Freeport, Ill.

MICHIGAN FARMS Good improved farms, splendid soil, fine climate, selling cheap. Write for "list 1". BENHAM & WILCOX, Hastings, Michigan.

The land that grows Bank Accounts



DEEP RICH SOIL MEANS LESS TOIL

The Land of Plenty....

Rich soil, a mild climate, and abundance of water have made South Dakota one of the best agricultural states in the Union. The soil of Lyman county is unusually rich. It is a black loam with yellow clay subsoil. The extension recently built through Lyman County by

THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY

Has opened up a part of that state hitherto sparsely settled. South Dakota is long on wealth but short on people. The total population of the state is 455,000. Bank deposits on January 29, 1906, amounted to $35,287,274, or an average of $77 for each man, woman and child in the state. There are golden opportunities for the homeseeker and the small investor. Good land can now be bought at $10 to $15 an acre. Homeseekers excursions—one fare plus $2 for the round trip to South Dakota points every Tuesday this year.

South Dakota literature for two cents postage

F. A. MILLER
General Passenger Agent
CHICAGO

R. C. JONES
Michigan Passenger Agent
32 Campus Martius, DETROIT

August 1906

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

3 Rivers, Mich
May. 20. 06 ,h, Thursday

Dear Wifey:

Here I am at the Kellogg Farms, and I can't stop seeing things and asking questions long enough to write you a real letter.

Here is a scrap I have torn out of the evening paper, "The Hustler" which tells the story better than I could write it, and its all true, only it don't tell half about those big berries.

My trip hasn't cost me much—the Kellogg Company pays the hotel bill and the only money they've let me spend is a dollar for subscription to "The Strawberry," and say, I wouldn't be without that magazine for a farm. Wish Bunker was here.

Look after things the best you can. Home Saturday.

Your Hubby.

Dave Simpson.

& Co.

nery Books

Strawberries at the Kellogg Farm.

That little advertisement in Monday night's Hustler relating to strawberries at the Kellogg Farm did the business, and Tuesday morning the scene presented in the big strawberry fields at the farm was a beautiful and inspiring one. Men, women and children flocked thither with baskets, pails and pans to gather the superbly splendid fruit that is an ever new surprise and delight to the people of this section, for nowhere else in the world are finer and larger berries grown than right in Three Rivers and on the farms made famous by its founder, the late R. M. Kellogg, and whose splendid reputation shows no evidence of diminuation under the skillful management of his successors.

This great institution has done a larger business this season than in any previous year of its history, and, as the visitors to the fields today looked out upon the long row of noble plants laden with immense red berries, the steady advance of this great institution and its increasing popular favor in all sections of the country appeared not at all strange. As one visitor exclaimed: "If anybody ever had a doubt of the superior quality of Kellogg's plants and Kellogg's way of growing berries such a sight as this ought to dispel that doubt. It is the greatest strawberry sight, so far as real quality goes, that I have ever seen."

When one can pick a quart of berries without moving from his place between the rows, and do the work in less than two minutes, it certainly indicates the abundance in which the berries are produced. We don't know how many quarts were gathered from one patch of Dornans yesterday, but if it ran into thousands it would not exceed our own estimate, based upon what we saw there. If you haven't been out to the farm this season, you should not fail to do so at once, as the plants will soon be plowed under to make room for a crop of Canadian field peas, one of the legumes employed by the Kellogg management to restore fertility to the soil and thus maintain the fine quality and famous stamina of the strawberry plants. Nobody should fail to get some of the mammoth fellows, as delicious and sweet as they are big, before the opportunity has vanished.

GIANTS DEFEAT THREE RIVERS

Se

SWAR
Lot 1,
16, 17, 2
BROOKI
Lots 1,
10, 21, 2
28, 34, 3
73, 74, 7
BELL A
Lots 1,
BOYER
Lots
Ma
Sales
purc
tage
men

T

from

P

Schoon

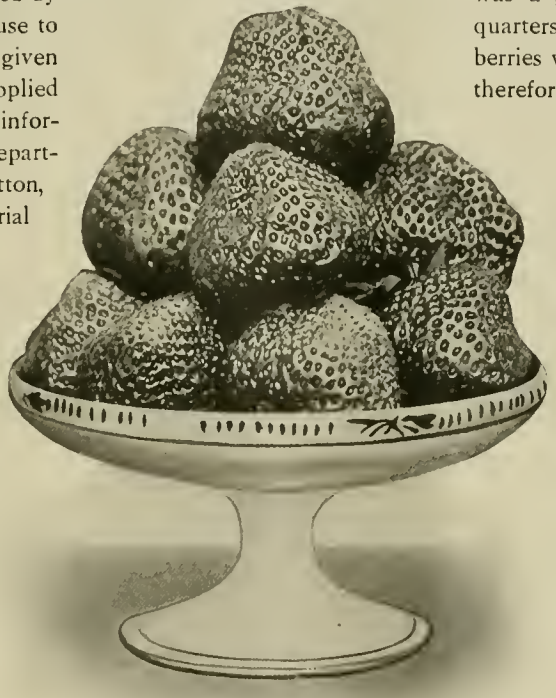
At 9 o'
1906 a
tives
Mrs
and C
riage
Nayl
of Ka
the a
annou
marc
Mr.
man
bride
Th
the
me
t

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 8 Three Rivers, Mich., August, 1906 $1.00 a Year

WHEN one sets out to gather statistical data concerning the production and marketing of strawberries he discovers how extremely meagre are the details obtainable. For an interest that stands second only to apple-production in the fruit interests of the country, and whose annual product is known to exceed in value $15,000,000, it seems surprising that so little attention is paid to this industry, when data concerning it is so vital to its larger and permanent success. Imagine the effect upon the cereal interests without the data supplied by the government, for instance. The use to which millions of acres of ground are given over annually is determined by data supplied each month by an army of statistical-information gatherers acting under the Department of Agriculture at Washington. Cotton, the meat industry, and interests in industrial lines, depend for many things upon the information furnished without cost by the federal government. But a million acres may be added to the area given over to strawberry production, or rain or frost or drought may wipe out a million acres of the fruit, yet the only information to be had for the most part, comes from sources entirely unofficial, while there is no attempt whatever to obtain facts and figures concerning many important details.



Recently we set out to secure statistics concerning the 1906 crop of strawberries, and addressed a letter to the proper authorities in every state and territory. Replies have been received from nearly all to whom we wrote, and they were in all cases courteous. But the actual data received was pitifully meagre, the magnitude of the interest considered. One interesting but indefinite report came from the state of Washington, the secretary of state, Sam H. Nichols, advising us: "The results of the season relative to the strawberry crop in this state are as follows: the crop was somewhat injured by the continuous rainfall at the time when the ripening period ought to have been the most prominent, but take it as a whole, the crop has been very favorable in this state and prices were good."

J. A. Ferguson, commissioner of agriculture for Montana, writes of the crop in that state, and incidentally suggests how great are the opportunities for the strawberry man in Montana. We quote: "Reports show almost total failure, for which extremely wet season is to blame. Berries small and soft. You must understand that we do not raise any berries for export trade, there being in favorable years not nearly enough for home use. However, the strawberry territory is being extended, and the time may come when we shall arrive at the point of furnishing nearer what is necessary for our own people. With the exception of the early shipments, Montana berries come quite a great deal later than others on account of the high altitude. Am sorry that I cannot give you greater detail."

Secretary L. A. Goodman of the Missouri State Horticultural Society writes as follows: "The crop in south Missouri was a good one, not large, but fully three-quarters, and because of the dry weather the berries were in fine condition for shipping and therefore brought good prices. Central Missouri crop was about 50 per cent; brought good prices also. In north Missouri the crop was about two-thirds and prices continued good because of the dry weather. Altogether, the crop throughout the state was very satisfactory."

Secretary W. C. Garrard of the Illinois State Board of Agriculture writes: "Our correspondents report that the strawberry crop of 1906 in this state was 84 per cent of a normal yield. This is a much better report of this crop than our correspondents have given during the past four or five years."

Wesley Webb, corresponding secretary of the Delaware State Board of Agriculture gives some interesting details as follows: "The strawberry crop in Delaware was cut in yield so that it was only from 50 to 65 per cent of what was expected, but all the moist lands yielded full crops, while the very light, sandy soil yielded next to nothing. The cause was a severe dry spell shortly before the berries began to ripen. The acreage was large, so that the total yield was nearly as large as any previous year up to 1905, and prices were about double those of last year. Most of the crop was sold at the station for cash, buyers being present from the leading commission merchants in Philadelphia, New York, Boston and many other cities." The secretary of the Iowa State Horticultural Society, Wesley Greene, reports that "the strawberry crop was cut short by drought in the southern part of the state 15 to 20 per cent. There was moisture enough in the northern part for a full crop."

Now while these reports contain facts of interest, they are without system or arrangement, and lacking these they fail of their purpose as statistical data. North Carolina, proud of her

record as the greatest strawberry state in the Union, is able to report nothing more definite than that the crop "was normal as to yield and brought good prices." And Tennessee, one of the leaders of production is even more indefinite, its commissioner of agriculture saying only that "the yield of strawberries this season was the largest in many years." New York and Ohio, both heavy producers, are unable to give any statistical account of themselves as to strawberries.

We urge the importance of action on the part of our readers in all of the states looking to some definite effort in behalf of a systematic collection and distribution of strawberry statistics by the federal government, confident that it would result to the great advantage of the industry in many of its more important phases.

Improving on a Recipe

By James Charles

THIS year's experience in canning strawberries has taught us that a heaping teaspoonful, or one and one-half even teaspoonsful, of cornstarch to a quart of strawberries, gives better results than one-half teaspoonful, as suggested in my communication in July issue of The Strawberry, page 148, as this gives a thick syrup all through the berries, and every particle of the can's contents will have the true strawberry flavor.

Have received the worth of my subscription to your excellent magazine many times over already, so do not see how any strawberry grower can afford to do without it. Am recommending it to others.

Richmond, Ind.

Slime Mold on Strawberry Plants

OUR strawberry bed is on high, dry ground; and in spots sometimes one plant or two, sometimes on part of one, there will be a purple mold or smut on the stems of leaves and berries; then the berries soon dry up. When you first look at it you think it is covered with lice, but on touching it, it seems like smut. The plants were mulched with coarse strawy horse manure; would that be the cause?

Flushing, Mich. F. H. N.

THIS inquiry was referred to Rufus H. Pettit, Entomologist of the Michigan Experiment Station, who says: "While it would be impossible to say just what it is, your correspondent's description seems to indicate the presence of a slime mold (one of the Myxomycetes.) Purple mold such as he describes might very nicely be a slime mould which may have come from the fertilizers or from some other source and grown up the side of the plant. We have grasses here which support such colonies of growth. The most of the injury that comes from them, in the case of the grass at least, is a sort of smothering effect, as the growth is supposed to be entirely external. Now these strawberries may be affected by something of the kind on them made by decay or something else. It would be impossible to say without specimens. I am inclined to believe, however, that the difficulty will turn out to be caused by the slime mold.

How to Handle Pickers

By Frank E. Beatty

I SHOULD like to see in The Strawberry a discussion of the subject of the picking of the crop. I have noticed that some pickers are very hard on the vines, breaking down the fruit stems, which causes the immature fruit to wither. Others take hold of the berry in such manner as to crush a great many. What can be said or done to induce careful work?

I am greatly pleased with The Strawberry.

Very truly,

Urbana, Ohio. J. R. WICKERSHAM.

WHILE it is rather late in the season to give instructions on handling berry pickers, the subject is of such universal interest that it never is out of place. The handling of help requires a great deal of tact in any business. As a rule employes will take interest in their work according to the interest shown in them by their employer. The surroundings and general appearance of things usually have their influence. Especially is this true with the class of help that has an ambition to become more than an ordinary day laborer, but the trouble is that not enough help of this kind can be secured to harvest a crop of strawberries.

Experience has convinced us that it does not depend so much upon good help in order to get berries properly picked as it does upon having a good foreman who understands how to manage the pickers. No matter how conscientious the help may be, it is necessary to have a system. Iron-clad rules should be made and a man with executive ability employed as foreman to see that the system is carried out and the rules obeyed. This foreman should give every picker to understand that he will not have anyone in the patch who will not live up to his rules, and should any pickers become careless with the vines and refuse or fail properly to pick the berries, they should be discharged at once. If one picker is allowed to break a rule, it will be a short time only until the other pickers will get careless in their work.

The only way successfully to handle help is to say just what you mean and mean just what you say. In other words, the foreman should command the pickers and not allow them to command him, and yet all this must be done with kindness. A foreman should never show an angry spirit, because then he would lose control of himself. If a picker cannot be handled in a firm but kindly manner, tell him quietly to go the office and get his money. This is an object lesson to the other pickers. They soon learn that that the foreman means business and if they are to hold their jobs they must do careful work.

Some pickers will paw over the vines, breaking the fruit stems and so injure the plants and berries that the crop will be greatly damaged. It is the foreman's place to show each picker how to handle the berries without bruising them or damaging the vines. Every berry should have a short stem left on it, and berries which are to be shipped should be gathered a little under ripe. No picker should be allowed to pick a large handfull of berries before putting them into the box. Two or three berries is enough to pick in the hand at one time, and they should be handled by the stem as much as possible.

CEMENT is the greatest Building Material of our age.

I want a man in every county to take up a specialty in the industry. There is no brighter field for anyone than concrete work. Something new has been found that can be made from it.

$100 per week can be made by two men

In every paper you pick up you will see ads. with the same inducements, but are they true? Will be only too glad to **prove to you that this is true.** You have nothing to lose in writing me; will be all gain.

C. J. UIBLE WESTBORO, OHIO.

The Land of Big Berries

ARKANSAS and TEXAS

Choice locations along the

IRON MOUNTAIN ROUTE

Full information Free. Write to

H. D. ARMSTRONG, T. P. A. 88 Griswold Street DETROIT, MICH.

ELLIS FARNSWORTH, D. P. A. 186 Clark Street CHICAGO, ILL.

N. C. TOWNSEND, G. P. & T. A. ST. LOUIS, MO.

IN THE STRAWBERRY FIELD OF JACOB PHEND, NAPPANEE, IND.

Here Childhood, Youth, Maturity and Old Age Meet Upon the Level, Each and All Finding Pleasure and Happiness in the Delightful Work

August Work for Strawberry Growers

AUGUST is a month in which every grower of strawberries should put in his "best licks," because it is only a few weeks to the time when, taking the whole field over, the plants will start to build up their fruit-bud systems. Every grower should see to it that his plants receive the very best of care, thus insuring a large vegetative growth. This will fill them brimfull of vitality and lay deep and strong foundations for a bumper 1907 strawberry crop. It isn't well to draw upon your bank account until you have made a deposit, and the size of your draft must be proportioned to the amount of your credit. The size of the draft you may reasonably make upon your strawberry plants next spring will depend almost entirely upon what you put into them this fall. We want every reader of The Strawberry to be able to make heavy drafts on his bank next season and still have a generous balance to his credit.

Season for Foundation-Making

THE reason we urge forcing the plant in August is that the first requirement is a large vegetative growth, and it is unsafe to delay this work until the time for actual bud-building. At the time of bud-making the plant should not be forced, but all its energies should be expended in the single line of bud development. And here again we urge intensive methods of cultivation. Every time you cultivate and hoe the plants you give them an extra "boost," and by destroying all weeds and other noxious growths, there will be little trouble with them in after months. It is our practice to give the plants on The Strawberry farm at least four cultivations during the month of August and two thorough hoeings. This stimulates the plant into great activity, to a certain extent lessens attacks from fungi, and keeps a perfect dust mulch, which insures to the plants a regular supply of moisture.

Preparing Plants for Bud Development

IF our readers have followed former instructions as to layering runners, they doubtless have their ideal row already formed, but if there are still some vacant places between the hills, where other plants may be set without crowding, it will be all right to place runner nodes so that they will fill in these vacancies. Then there is the work of removing the runners after the rows have been filled according to the system you have adopted, and we safely may say that it is during the month of August that the runners will get the start of the grower if he "don't watch out." And it must be remembered that it is not only the mother plant that is now making runners, but the young runner plant is setting up a family of his own and is trying to monopolize a large amount of space, and appears to be making a special effort to extend the sphere of his influence into the other fellow's row.

Layering the Runners

JUST how to remove the surplus runners with the least labor and expense requires some forethought. We find the rolling runner cutter a very valuable implement in clipping off the runners that extend into the open space between the rows, but of course it does not affect those remaining directly in the rows. The latter best may be removed with the hoe and the hand. Many inquiries are received as to whether there is any advantage in cutting the runner off close to the plant. The work will be equally effective whether the runner is cut close to the plant or just back of the node. However, a better appearance is secured where the runners are closely cut. But don't take a handfull of runners and jerk them off, as this is apt to injure the plants. Take one runner at a time and give it a quick pull, at the same time pressing with the thumb nail, which will sever the runner with little shock.

How to do the Work

THIS is the month when the second breed of leaf-rollers puts in its appearance, and if you are located in a section where this insect is found, we advise spraying with Paris green at once. If the leaf thoroughly is coated with poison at the time the eggs are being hatched, it will be much more effective than if it is applied after the roller has become sufficiently matured to start drawing the edges of the leaf together with his web. When this is done not only is the leaf injured, but the roller is securely ensconsed in the leaf, making it difficult to reach him with the spray. As August is the month in which fungi is apt to develop, we may better than not kill two birds with one stone. This may be done by adding Bordeaux mixture to

Spraying in August

the Paris green, and spraying with this solution. In combining the two we have found that ten ounces may be used without injury to the plant.

Formula for Bordeaux Mixture

IN order that our readers may be fully advised, we repeat here the formula for making the spraying materials to be used in the work above outlined: Put four pounds of blue vitriol into a coarsely woven sack; suspend this in a vessel containing twenty gallons of water, arranging the sack so that the bottom will set on the surface of the water. This will allow the air to come into contact with the vitriol, causing the latter to dissolve in a very short time. Then take four pounds of lump lime and pour over this three or four gallons of hot water, enough so that it will slake without burning, constantly stirring while slaking, which aids to prevent burning. When slaked the lime will be quite devoid of its granular quality. When the lime is slaked add enough water to make twenty gallons. Take one pound of lump lime, sprinkling over it eight or ten ounces of Paris green. Over this pour two gallons of hot water, and stir to prevent burning. Now we add the twenty gallons of vitriol solution to the twenty gallons of the lime solution, also the Paris green and lime solution, and we have the Bordeaux mixture and Paris green combined in a total of forty-two gallons of liquid. Note that we have advised more Paris green than usually is given in the regular spray calendars, but as the Paris green here has been dissolved with the lime, the acid has been neutralized, and you may with safety use the quantity named. Best results will be obtained by allowing the lime and Paris green solution to become thoroughly cool before adding to the blue vitriol solution.

Fall Setting of Plants

By Frank E. Beatty

JUST now we are receiving so many inquiries about the setting of strawberry plants in the fall of the year that we are convinced an article on the subject will be timely and suggestive. We always have discouraged fall-setting of strawberries because at that time the plant is building up its fruit-bud system and it should be left undisturbed until this process of development is completed. By the time this is accomplished it is entirely too late to do the work. In fact, the development of the fruit bud is carried on in the plant until growth is checked by the coming of frost. Consider for a moment what it means to the plant to disturb it at the time when it requires all its energies to carry it through the strain of development, and it will be seen how detrimental to the plant's future power as a fruit producer such disturbance must be. In the fall, too, the plant is green, full of sap and immature, therefore lacking in vitality. And as the plant must live for many days after being taken up on the vitality it contains, it is important that its vitality at setting time should be at its highest. Thus, a plant in the fall, before it is perfectly developed, has not sufficient stored-up vitality to overcome the shock of transplanting and carry it through the work of taking firm hold upon the soil of its new home.

Some years ago when I was engaged in strawberry growing in Indiana, an Illinois friend came to me to get several thousand strawberry plants for fall-setting and I advised him by all means to postpone the work until spring, fully explaining to him why this was the better way. His reply was that he wanted to get started in business right away, and was determined to have the plants. But I showed him that fall-set plants would not hasten the day of fruit-picking at all, and said to him: "I would like to fill your order, but if I do I'll get all the benefit and you will not get your money's worth."

"I am willing to take all the chances," replied the neighbor, and the upshot of it was, I sold him the plants, and they were beauties, too. I had no patent process for putting vitality into plants more than nature herself could do, and the result was as I had outlined. A large percentage of the plants failed to take hold, the neighbor became discouraged and quit the business, and to this day doubtless looks upon strawberry production as a poor way to increase fortune.

And the fall setting of plants is quite unnecessary. Even from the South, where for years it was believed that spring-set plants would not live, we are now receiving letters from members of our school speaking of the success of their plants which were set in the spring. One of these correspondents' letters appears in this issue of The Strawberry, and he is an enthusiastic believer in the position taken by this journal on the subject. His own fields in Florida are a living testimony to the value of spring-set plants in that semi-tropical state.

To be sure, in the extreme South and other localities where there is no winter worthy the name, and where the plants continue to grow throughout the twelvemonth, strawberries may be successfully transplanted during the early winter months. And in the North, circumstances frequently arise where some fall-setting is necessary. For instance, plants set in the spring having missed in places, or where insects have destroyed certain plants—in such cases as these plants may be taken up from a row to fill the vacancies thus created. But even in this work, great care must be taken to do the work just after a rain, and while the soil is full of moisture so that a considerable quantity of soil may adhere to the roots when removed, which, to a certain extent, will prevent a check to the growth of the plant.

But to take a plant from its bed and ship it a long distance during this period of its existence would be very hazardous, indeed, and we know it to be poor horticultural practice to set plants in the fall—a practice sure to bring disaster, sooner or later, to those who follow it.

Just a word to those who are in a rush to get into the growing of berries: Employ the energy you purpose putting into the fall-setting of plants in scattering manure and getting the land in fine shape for the reception of plants next spring. This is the true and practical way to rush things.

$69 For a Genuine $125 "Schafer" Furnace Only heater in America still made of old fashioned indestructible wrought iron (not short lived steel) for which Youngstown is famous. Has riveted joints and a 3-inch thick lifetime fire box which **never** gets red hot. That's why it never gets dirty, never sets fire to a house and never causes weak lungs by burning the "life" out of the air. Terrific capacity. Fuel record, 2c a room, a day. On trial. $5 down. Tools free. Save $50. Set up your own job. A book showing how easy it is, and why cast iron heaters cause consumption, free. Schafer Furnace Co., Box C, Youngstown, Ohio.

STARK TREES FOR 81 YEARS HAVE MAINTAINED THEIR RECORD—HIGHEST QUALITY, LOW PRICE. We offer the only GENUINE STOCK of the superb new fruits: KING DAVID, DELICIOUS, BLACK BEN, CHAMPION and SENATOR Apples; BANNER, SUNRISE, Grapes; GOLD Plum, FAME Pear, etc. Finest stock in the U. S. of all leading commercial sorts. **We PAY** CASH WEEKLY and want more Salesmen. Price-list, etc. FREE.
STARK BROS Louisiana, Mo. Rockport, Illinois Fayetteville, Ark. Dansville, N. Y.

STRAWBERRY FARM FOR SALE

HAVILAND FRUIT FARM—Three miles from the great strawberry center of Durant, Miss. Good roads; free delivery of mail; splendid 'phone service. Good well and spring water; ample for large amount of stock.

FARM comprises 156 acres of fertile land; 39 acres in cultivation, 5 acres in plums, now yielding a revenue annually; 9 acres in berries, which are very successful; 1 acre in apples.

BUILDINGS—One nice six-room cottage; one large barn; two tenant houses; two large packing houses; one chicken house; one pig pen—all of which are new. In short, an up-to-date farm, well fenced and in a high state of cultivation. **Purchaser can make money from the start.**

Address **I. W. SAXON, DURANT, MISS.**

How Colorado Celebrates Strawberry Day

By H. G. Overbeck

STRAWBERRY DAY was celebrated for the ninth annual time at Glenwood Springs, Colorado, on June 16. Out here in the Centennial State it has become a custom for the various agricultural districts to hold a sort of harvest festival, each named after a principal fruit product of the district. Thus, on the western slope of the Rocky Mountains, which produces most succulent and delicious strawberries, Glenwood Springs has chosen Strawberry Day for its annual event.

The 1906 program was characteristic not only of Strawberry Day, but gives some idea of the nature of these celebrations in general. The leading attraction was a big free feast of strawberries and cream with cake made by the very best bakers in the world—Colorado women. A hundred and fifty crates of berries were prepared, the ladies' committee in charge of the work spending the entire previous day, assisted by volunteers from among the school children, in hulling and washing the berries. Cream was furnished by the general executive committee, seventy-five gallons being provided. Cakes were furnished by the housewives of the town to the number of 450.

Long tables, built of trestles and planks on the floor of the opera house, were appropriately decorated with freshly gathered wild flowers. Plates were placed along both sides of these tables, filled with berries ready to be eaten, and at frequent intervals were great platters of cake and pitchers of rich cream. The great crowd of participants was admitted through the main entrance of the building until all the benches ranged along the tables were filled. Then the gates were shut, to be reopened whenever a table had been deserted and replenished with fresh supplies, those having been served retiring through another door. This manner of serving prevented confusion and also helped to control the rush of small boys who would overwhelm everything if not restrained in some such way. And we wouldn't give much for a boy who didn't want his share of strawberries. The feast lasted three hours, and in that time over 5,000 persons had been helped to a liberal portion of the juicy fruit and its accompaniments. There was enough for all and no single guest was disappointed—a characteristic of Rocky Mountain hospitality. A fine orchestra discoursed appropriate music throughout the duration of the feast.

PART OF THE STREET DECORATIONS AT GLENWOOD SPRINGS

The dead tree standing in the enclosure came from the territory in which President Roosevelt hunted last year, and was the refuge of one of the bears captured on that occasion

THE BIG OPEN-AIR SWIMMING POOL ON STRAWBERRY DAY

This pool accommodated over 1,000 people at one time on this event
There were 500 people in the water when this picture was taken

The dominant idea of the general executive committee which had the day's program in charge, was "everything free." No entertainment was allowed at which an admission was charged, with the single exception of a baseball game between the local club and a team from one of the neighboring towns which sent a large delegation of visitors. All the brass bands in the surrounding country were engaged for the day and concerts were given hourly on many street corners.

One of the show places of Glenwood Springs is the big swimming pool which is kept filled by the flow of hot water from the mineral springs from which this city takes its name. This pool was thrown open freely to all visitors during the afternoon and many hundreds accepted the invitation to take their "annual bath" at Glenwood Springs. The day was rounded out with two dances in the evening, both free. One was an out-of-doors affair, the floor being a large canvas spread on the town square. The other was at the opera house, where the large tables used for the strawberry feast had been removed and the floor waxed for dancing.

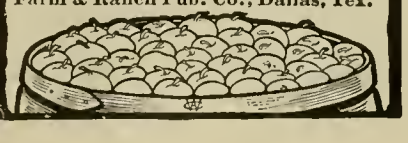
The town has adopted one annual

feature which might well be copied by other places with similar celebrations. Colorado maintains an Old Soldiers' and Sailors' Home at Monte Vista. Every year ten of the best crates of berries grown in the valley, a number of the best cakes, and sufficient money to buy the cream, are sent to this home from Glenwood Springs so that the old "boys in blue" who are passing the last few years of their tempestuous lives at this quiet retreat may feel that out in the busy world they are still remembered and may help to celebrate Strawberry Day even if they may not be present in person.

An interesting, and we think entirely appropriate, feature of the day has grown in recent years. The time has been seized upon as apropos for a honeymoon tour by the lads and lassies residing in more remote parts of the district, and now every year on this occasion there are from eight to ten marriages performed here. One young man, thinking the day was a legal holiday and that the county offices would be closed, but determined that his great purpose should not be frustrated, wrote to the county clerk in advance, asking that officer to leave a marriage license at some convenient place so that there would be nothing to hinder the welding of the golden band at Glenwood Springs on Strawberry Day.

Glenwood Springs, Colo., July 10, 1906.

TOADS are not things of beauty; their graceful lines inspire no artist's touch or poet's verse. But if "handsome is as handsome does," the toad is more lovely than many a pet of nature whose beautiful form or glowing colors hide an enemy to man. Next to the birds—in some points equalling quite the best of our bird-friends—the toad serves the gardener and fruitman in most practical ways. The grub, the slug, bugs that fly and worms that crawl, form his piece de resistance, his ambrosial delight; and he feasts upon them like an epicure. Don't be too hasty about killing the innocent but ugly fellow who comes to your strawberry patch only to serve you loyally, doing not one particle of harm to anything you value. These humble and homely things serve in a way to make even selfish man ashamed of himself, and we hope Strawberry folk will recognize his efforts and give him all the room he wants; and the more he increases his family the better will it be for the patch.

STRINGFELLOW'S
"NEW HORTICULTURE"
This radical new book has aroused the horticultural world as no other book ever published has. It treats the subject from a new standpoint. Its methods are almost startling. Leading orchardists and fruit growers endorse its principles. The man who would grow, gather, keep and ship fruit with the greatest success at least cost finds this book a regular gold mine. No work ever published on the subject contains so much that is new and practical. It's sure to work a REVOLUTIONARY AND ORIGINAL BOOK complete turning over of old theories and methods. Read it and make every tree and bush earn you more money. Circular free. Book, postpaid in paper binding, 50c; cloth, 75c. Order early, as edition is limited. Address
Farm & Ranch Pub. Co., Dallas, Tex.


An Answer to Many Inquiries

By Joseph Bolt

I WROTE a letter to The Strawberry last spring that appeared in the May number, which you so appropriately headed, "Success to the Man Who Does." Well, that letter got me into a peck of trouble, and if you have room to put this in the next issue it may help me out to some extent. I get so many letters asking so many questions! Some writers enclose a stamp and some do not. Most of them want me to tell them all about Florida. Now anyone who read my letter could see that I had no time or money to travel all over a state 10,000 miles larger than New York, or as big as Pennsylvania and New Jersey put together.

One man said that he talked with a man who was down here last winter. The man said that Florida was a low, wet country. Another man said it was a high, dry country. He wanted me to say who was right. Well, I can only say they are both right. Another man wants to know if he could come here in the fall and buy a piece of land as cheaply as I did and clean it up and plant strawberries and tomatoes and make a crop—market it in time to go home (near Buffalo, N. Y.,) to market his crop there. He does not say how he is going to get a piece of wild land in condition in time, or if he did, what is he going to do with the weeds and grass that would grow ten feet high during the summer. Such foolishness has been tried from time to time and always proved a failure. Then these people go home and curse Florida.

To make a long story short, such people are not welcomed here except by those who expect to get money out of them.

Another man congratulates me on my good luck, and wants to to know if I think he would or could do as well a I did if he came here. Well, surely, the Lord would give him as much rain and sunshine as he does me, and if he will do the rest as I do he certainly can do as well. But as for luck, I am no believer in it until you put a P before it.

From Southern sources I get inquiries for plants. They want Kellogg's strain of plants, but as Kellogg won't sell any for fall planting they want to get some from me. Well, I am not in the plant business. I raise a few during the summer to fill in losses or to add a row or two if I have room, and if I have any plants over I throw them away.

People here fear they will burn up if they set them in the spring. Well, mine don't burn, and my land is a sand hill. Every Southerner knows what that is, and I have no secret about it. I simply keep them cultivated, not only with a horse, but also with hoe or rake—any way to keep the ground loose and weeds down; and every time when it is necessary, whether there is a pic-nic or whether fish bite or not—if my berry plants need my attention they get it, and that is all my secret.

But I do say that there is no place in this country where a man with small means and willing to work can make a home quicker and easier than here, and in a climate where life is worth living—not too hot or too cold; ten months of summer and two of fall. One can have fresh vegetables and fruit of some kind the year round, which makes living cheap. And land is cheap and plenty of it. But the man must bring his heart along, for without that he surely will fail.

Brooklyn, Fla., July 4.

HERE is an encouraging word spoken by a commission merchant in an interview with a reporter of a Columbus (Ohio) newspaper. He said: "No other berry or fruit has half the popularity enjoyed by the strawberry. People are

Make More Money on Fruit Crops
Everyone who grows fruit, whether a large commercial grower, or one who has only a few fruit trees, a berry patch or a garden, should be interested in knowing how to get the most profit from his crops.
THE FRUIT-GROWER
ST. JOSEPH, MISSOURI
is the only magazine in America which is devoted exclusively to the interests of those who grow fruit. It is handsomely illustrated, and contains from 36 to 76 pages each month. It tells all about fruit of all kinds—and nothing but fruit—how to market, how to pack, cultivate, spray, prune, how to MAKE MORE MONEY from your crops. Sample copy will be sent free. Regular price is a dollar a year, and each subscriber is entitled to a choice of any one of our series of ten "Brother Jonathan" Fruit Books—the best in existence.

Three Months Free
We are so confident The Fruit-Grower will please you that we will send it to you three months absolutely free if you will mention paper in which you saw this advertisement. If, after three months, you like the paper, we will make you a special offer for twelve months more. If you don't like it, notify us and we will take your name off the list. The three months will cost you nothing. We offer Cash Prizes for new subscribers—write for particulars. Write your name and address in blanks below and mail to
Fruit-Grower Co., Box B, St. Joseph, Mo.
FRUIT-GROWER CO., ST. JOSEPH, MO.
I accept your FREE three month's trial offer. At end of three months I will either pay for a year's subscription or notify you to stop paper. In either event there is to be NO charge for the three month's trial.
Name_____
Route or P. O. Box Number_____
Town_____State_____

willing to pay a premium to get them in advance, and after a season of several weeks—this season has been unusually long—they are still willing to pay a premium to get hold of a belated lot of the berries. A great many of our customers would eat strawberries all the year round and not tire of them."

Varieties for the Hill System

WOULD the editor have the kindness in the August issue to give a list of varieties of strawberries considered adapted to the hill culture and in the order of their productiveness. I have tried different modes of culture with varying success and have concluded to grow in hills.

Fergus Falls, Minn. H. N.

IN growing strawberries by the hill system such varieties as build up a large crown and foliage system should be selected, as it would be a loss of ground to grow varieties in hills that do not "stool up" well. Therefore we should recommend such varieties among the extra-earlys as Excelsior and Texas; among the earlys, Crescent and Tennessee Prolific; among the mediums, Senator Dunlap and William Belt, and among the late varieties, Dornan, Pride of Michigan and Mark Hanna.

All of these varieties are heavy crown builders, and produce an abundance of foliage that protects the fruit from the direct rays of the sun when grown in the hill. The hill system is very satisfactory with such varieties. The soil should be quite rich, and the runners should be cut off before they form plants, which naturally will assist the original plant to develop a strong fruit-bud system.

WAR to the warrior may be a source of intellectual inspiration, but it gives him no happiness —nothing that is wrong or harmful can bring happiness to any human soul. Hear what Marshal Oyama, who led the Japanese to their marvelous success against the Russians, has to say on this subject: "My idea of happiness is to dispose of everything I possess that belongs to the practice of arms and go far into the country with big boxes of books to read for the rest of my days; books that tell of happiness and progress, and not of the terrible deeds of war. And I would gather about me my best old friends and little children. Then in the sunny days all would be happiness." If Marshal Oyama would engage in strawberry culture he could round out to the full his circle of happy occupations.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

STRAWBERRY FIELD OF R. STRIMPL, NETWORITZ, BOHEMIA.

Strawberries in Bohemia

OVER in Bohemia is an enthusiastic reader of The Strawberry, and he contributes a good word to this issue of the magazine as well as a fine picture of his strawberry fields on his farm at Networitz, Bohemia. The farm is named "Chlistov" and the owner is R. Strimpl. On his letter heads he announces his principal products to be Strawberries and Raspberries (Jahodarstvi und Malinarstvi), and a glance at the picture shown here, together with another view sent us of his great raspberry orchard, indicates with what care and thoroughness the work is conducted in both lines.

The photograph shown herewith is of the strawberry bed and was taken about April 10. Mr. Strimpl writes: "To the right you see the field rolled and marked. About thirty-two inches apart are six trenches in which we set the plants. The girls have been called to the front by the photographer. To the left the field already is set. Behind the barn there are last year's strawberries just peeping through the mulch. They now (June 10) cover almost the entire field. They are in single row. Observe also the water furrows."

We wonder how many of us could acquire so good a use of the language employed in Bohemia as Mr. Strimpl has done with English! It is interesting to know that American plants and American methods are employed with such fine success on the European continent. We are under obligations to Mr. Strimpl for his thought of us, and trust we are to have more information concerning fruit-growing and fruit-selling in his country.

Strawberries in Missouri

THE summer meeting of the Missouri State Horticultural Society was held at Moberly in June, and the strawberry was given due attention, as befits an interest so rapidly becoming of large commercial importance to that state.

Speaking on the subject of marketing the crop, Secretary Goodman laid stress upon the necessity of greater care in putting the fruit in attractive shape on the market. The difference in the way fruit was packed and shipped by various growers was referred to, the secretary declaring that some growers always will get their fruit into market in good condition and form, while others seldom do so. The loss to all as a result of the failure of the latter is not to be overestimated. It was declared by another speaker that growers in Missouri were glad to sell their berries this season at from $1.10 to $1.15 per crate. It would be interesting to know to what extent these low prices were due to indifferent picking and packing.

G. T. Tippin, speaking from experience as a shipper extending over eight years, considered it of first importance that the grower study the market and discover the niche he desired to fill, and then drop in there. On another point he said: "In packing either for carloads or express, the best way is to have a printed set of rules covering points of color, size, how to pick and box, etc., remembering the least possible handling is the best. Field foremen should thoroughly understand these rules and enforce them. The three most important stages to note is ripening, care in removing from the vines,

and packing first-class fruit, leaving the rest in the patch. Have pickers grade as far as is possible. As a rule fruit is allowed to get too ripe for long shipments."

Dr. J. C. Whitten, horticulturist of the Missouri Experiment Station, referred to an instance of successful strawberry growing achieved by a negro at Columbia in that state. This man, who formerly was a day laborer, used his plat of three-fourths of an acre of ground in raising strawberries, mainly Warfield, Bubach, Clyde and Gandy. The berries were all sold in home market, and the crop for three years, on the same ground, has brought over $1,000. He uses the matted row, and when plowing is done turns out all the row but one edge. Sows bone meal for fertilizer, and works the soil in good shape. Grades carefully, only marketing the fine fruit. The rest is made into preserves by his wife, who is working up a good trade in this line.

Some Plants for a Dry Climate

I INTEND to set some plants next spring, and I thought best to start now and get posted on the subject and secure information as to the leading varieties for this locality. Will you please suggest three good varieties each of extra-early, early, medium and late. Also please give me information as to how to mate them so as to get largest yields.

Coyle, Okla. A. R.

THE list of standard varieties is a long one, and there are many good varieties. Strawberries are a good deal like friends—we all think more of some than we do of others, though we like them all. Every grower has his pets, and doubtless it will be only a short time before you, like the rest of them, will fall in love with some particular varieties which you will make your leaders. And this is the thing to do, because when a man falls in love with his work something will soon "be doing."

In order to get you started on the right track we suggest that you start with well-known and thoroughly tested standard varieties—that is, set largely to these, though, if you would like to try some of the newer varieties, do so on a small scale. Then it will be time enough, when they have approved themselves, to set out a large acreage.

For the three extra-early varieties we should suggest Excelsior, Climax and Texas. As all of these are bisexuals, it will not matter in which order they are set. For medium, we would name Parson's Beauty, Senator Dunlap and William Belt; all of these also are bisexual, and may be set in the order that best suits you. We should like to name Haverland in the list of mediums, but fear it would not be suitable to your hot, dry climate. For late varieties we recommend Dornan, Sample and Brandywine. The Sample, being a pistillate, should be set between rows of the two late bisexuals; that is, three rows of Brandywine, three of Sample and three of Dornan until all are set.

Of course, there are many other good varieties that would do well in your locality. In making these selections we have chosen those that are deep-rooters and will do well in a dry climate. We are sure it will be difficult to choose a better lot than is here named, your soil and climatic conditions considered.

The Fendall Strawberry

ONE of the readers of The Strawberry who is an enthusiast in all that pertains to strawberry production is Charles E. Fendall of Towson, Md., who sends us a photograph of a new berry that originated in his garden and which he is encouraged to believe is destined to take a high place among popular varieties. We have reproduced the photograph for the benefit of our readers, which appears herewith, and we quote from Mr. Fendall's interesting account of the berry itself and the estimate he places upon it:

"This berry originated in my garden at Towson. The plant was found in the spring of 1905, in a row of Wm. Belts; therefore it is either a seedling or a sport of the Belt. When I first saw the stranger I immediately marked it. When it bloomed I observed that the blossom was imperfect, while the Belt, as is well known, is perfect. It fruited a few berries in 1905 and they proved to be large and attractive—so much so that at the end of the season I carefully moved the plant to another part of the garden. From this plant I succeeded in getting enough plants to set out a row thirty feet long. This was done during the months of August and September of 1905. The plant is an exceedingly strong grower, from twelve to fifteen inches high, and throws out a great many runners. The berry is early—in fact, a week earlier than any other very large variety. Its color is

1 CENT IS ALL IT WILL COST YOU to write for our big FREE BICYCLE catalogue showing the most complete line of high-grade BICYCLES, TIRES and SUNDRIES at PRICES BELOW any other manufacturer or dealer in the world.

DO NOT BUY A BICYCLE from *anyone*, at *any price*, or on *any kind of terms*, until you have received our complete Free Catalogues illustrating and describing every kind of high-grade and low-grade bicycles, old patterns and latest models, and learn of our remarkable LOW PRICES and wonderful new offers made possible by selling from factory direct to rider with no middlemen's profits.

WE SHIP ON APPROVAL *without a cent deposit*, Pay the Freight and allow 10 Days Free Trial and make other liberal terms which no other house in the world will do. You will learn everything and get much valuable information by simply writing us a postal.

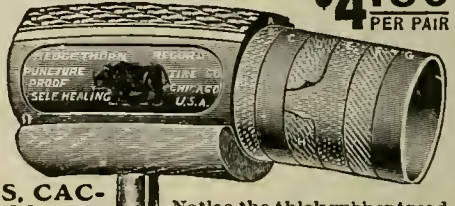
We need a **Rider Agent** in every town and can offer an opportunity to make money to suitable young men who apply at once.

$8.50 PUNCTURE-PROOF TIRES ONLY $4.80 PER PAIR

Regular Price $8.50 per pair. **To Introduce We Will Sell You a Sample Pair for Only $4.80**

NAILS, TACKS OR GLASS WON'T LET OUT THE AIR

(CASH WITH ORDER $4.55)



NO MORE TROUBLE FROM PUNCTURES.

Result of 15 years experience in tire making. **No danger from THORNS, CACTUS, PINS, NAILS, TACKS or GLASS.** Serious punctures, like intentional knife cuts, can be vulcanized like any other tire.

Two Hundred Thousand pairs now in actual use. Over Seventy-five Thousand pairs sold last year.

Notice the thick rubber tread "A" and puncture strips "B" and "D," also rim strip "H" to prevent rim cutting. This tire will outlast any other make—SOFT, ELASTIC and EASY RIDING.

DESCRIPTION: Made in all sizes. It is lively and easy riding, very durable and lined inside with a special quality of rubber, which never becomes porous and which closes up small punctures without allowing the air to escape. We have hundreds of letters from satisfied customers stating that their tires have only been pumped up once or twice in a whole season. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially prepared fabric on the tread. That "Holding Back" sensation commonly felt when riding on asphalt or soft roads is overcome by the patent "Basket Weave" tread which prevents all air from being squeezed out between the tire and the road thus overcoming all suction. The regular price of these tires is $8.50 per pair, but for advertising purposes we are making a special factory price to the rider of only $4.80 per pair. All orders shipped same day letter is received. We ship C.O.D. on approval. You do not pay a cent until you have examined and found them strictly as represented.

We will allow a **cash discount** of 5 per cent (thereby making the price $4.55 per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. We will also send one nickel plated brass hand pump and two Sampson metal puncture closers on full paid orders (these metal puncture closers to be used in case of intentional knife cuts or heavy gashes). Tires to be returned at OUR expense if for any reason they are not satisfactory on examination.

We are perfectly reliable and money sent to us is as safe as in a bank. Ask your Postmaster, Banker, Express or Freight Agent or the Editor of this paper about us. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a small trial order at once, hence this remarkable tire offer.

COASTER-BRAKES, built-up-wheels, saddles, pedals, parts and repairs, and everything in the bicycle line are sold by us at half the usual prices charged by dealers and repair men. Write for our big SUNDRY catalogue.

DO NOT WAIT but write us a postal today. DO NOT THINK OF BUYING a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it NOW.

MEAD CYCLE COMPANY, Dept. "J L" CHICAGO, ILL.

A FENDALL STRAWBERRY PLANT IN FRUIT

a deep red, when fully ripe, and it is shaped somewhat like a lemon—large, to very large—with a very large, showy cap. It is very prolific, the ground on each side of the row being literally covered with berries.

"I am more than pleased with the conduct of the berry, many single berries measuring from eight to nine inches around. I have in my garden many of the popular varieties, but I can say that the Fendall excels them all, although all are cultivated and located alike. The truth is, it is the most beautiful berry I have seen in twenty years of experience."

Strawberries in the North

By E. E. Read

I HAVE been an interested and much benefited member of The Strawberry family since its start, and wish to express my thanks to you for giving us such a good paper and thorough training in strawberry culture, which I think is the most ideal of all agricultural pursuits.

I live in the famous Park region of Minnesota, where there are lakes on nearly every square mile of land. Our home is situated between two fine lakes and the soil and climatic conditions are ideal for strawberry raising.

I started a small bed of thoroughbred plants last spring and am now about through harvesting my first crop of berries.

Last year was a very wet season, so that it was next to impossible to keep the weeds out and the runners restricted, so mine were nearly all too thick in the rows. I mulched them in the fall and uncovered them this spring, and they grew nicely. All did well at fruiting time with one exception, the Warfields, mated with Bederwood, doing the best.

The Michel's Early are the ones that failed and I wish to ask the reason. They had the same care and soil as the others, but this spring, after the mulching was removed, I noticed that a good many of the largest plants, mostly the mother plants, were dead. I could find no reason. The roots were all right, and there were no grubs or insects of any kind to be seen about them. Some of them that appeared dead at first still sent out a few weak leaves and fruit buds which did not develop fruit. The bloom was scarce on the best of them and consequently there were very few berries. The plants are now very rank and are sending out runners by the hundreds. What do you suppose was the fault? Our soil is sandy loam, very rich in humus, nitrogen and potash. There was no rust or mildew apparent and the only thing that I noticed last summer was a very few green lice on some of the plants. I had no way of spraying them, so I let them go as they were not numerous.

The Warfields did wonderfully well, as we have picked at least 100 full quarts from a row 220 feet long, in which were set about 110 plants, and there are still berries on the vines.

I am giving my new-set plants care exactly as taught by The Strawberry, and I expect to be able to tell some astonishing tales when I pick my one-half acre next year. We sell our berries as fast as we can pick them for 15 cents a quart, and could sell ten times as many at the same price.

Vining, Minn., July 8, 1906.

Your case appears to be rather a peculiar one, and we have studied the case of the Michel's Early variety with interest. We note what you say about the presence of green lice on some of the plants. This convinces us that the lice have drawn the juices from the mother plants, this work being done, doubtless, after the first runners were formed, and your rows were filled in by the runner plants. It would be possible for these mother plants to live until mulching time, but they did not possess sufficient vitality to live throughout the winter. If your soil is infested with these aphides, we would recommend dipping the roots of all plants in tobacco tea before setting them out. While we never are affected by these lice, we dip every plant in tobacco tea before setting out as a precautionary measure. As we have said many times, and perhaps cannot say too often, it is far easier to keep the farm clean of all enemies than it is to rid the farm after the enemies once have gained a foothold.

The fact that Mr. Read was picking his strawberries on the 8th of July, suggests the great possibilities, often pointed out in these pages, of growing late berries for market in the northern tier of states. The opportunity is past estimating in its importance. The late berries, as Mr. Read indicates, bring the best prices of the year.

Success Despite Discouragement

By Elmer Smith

IN the spring of 1905 I set a strawberry patch on a vacant lot adjoining my residence. I knew very little about strawberry culture, but concluded to try to raise some of this luscious fruit. I often had read what others had to say about the yields they realized from beds or fields of strawberries, and it always seemed to be out of proportion to the amount any other crop would produce.

My lot had for several years been covered with a heavy sod. This was turned under and the soil worked into the best possible condition, but I was almost persuaded to give up.

The sod would work to the top of the ground and neighbors told me it would be useless to plant berries on this sod. They said: "The grass will soon sod it over," "they will dry out with all that grass turned under," etc. But I worked away, procured my plants and when my bed was completed I had thirteen straight rows, three feet eight inches apart and 100 feet long, arranged as follows: one row Senator Dunlap, two rows Haverland, one row Senator Dunlap, two rows Enormous, one row Parsons' Beauty, two rows Bubach, three rows Parsons' Beauty, one row Haverland. Experienced growers will, of course, criticise part of this arrangement, but at that time I hardly knew the difference between pistillate and bisexual plants.

Fortunately, the season was a rainy one. The plants grew from the start and I hoed and worked among them almost

all my spare time. Just as soon as the ground dried sufficiently after a rain I commenced hoeing. When fall came I had a model patch, the only objection I could see was that some of the rows had too many plants. Just after working my plants the last time I mulched the space between the rows with stable manure. When freezing weather came I covered all with straw and felt that I had done my part and could at least expect nature to produce enough to repay me for my work.

This spring, as soon as the plants showed signs of growing, I raked the straw between the rows. The season started out well and promised much. Bloom literally covered the plants. Several berry growers said they never saw a finer prospect for berries.

But on the morning of May 7 the ground was white with frost, the thermometer registering 20 degrees. Hardly a live berry was to be found. Black eyes were everywhere. I supposed my entire crop was destroyed, but in a week or two new fruit stems appeared. Following the freeze we had two weeks of hot, dry weather which was unfavorable for any growing crop. At last we had showers and sunshine and soon the berries began to turn red.

On Monday, June 25, we picked the last berries preparatory to re-working the patch for another year. We kept an accurate account of the berries picked and found we had gathered 906 quarts from less than one-eighth of an acre. Considering that the freeze and drouth destroyed and damaged the crop to a very large extent this appeared to me to be a pretty good yield.

Urbana, Ohio.

Pluck and perseverance, accompanied by a fine faith, are requisites to the man who trusts to the soil and to the caprice of climate and weather for his livelihood. Our correspondent has shown these qualities in the way he continued "to labor and to wait" in the face of discouraging conditions. And his patience was abundantly rewarded, just as would have been the case in countless instances where men have impatiently given up in despair because nature did not smile continuously upon their efforts. Mr. Smith's description of the conduct of his plants following a severe frost is directly in line with our own experience. Plants that were black from frost April 20 one year yielded one of the finest crops of fruit imaginable six or seven weeks later. The moral is, stick to your strawberries even though the outlook at all times may not be as bright as you would like to see it. Everlastingly keeping at it will bring larger results with strawberries than anything else we are acquainted with.—Editor Strawberry.

Selecting a Location

I WISH to locate where I can do two things well, viz., grow and sell strawberries. Kindly give me helpful directions and answer the following questions: 1. How should land lie as to elevation and slope? 2. What kind (common name) of soil, and subsoil is best? 3. Would it pay to have soil analyzed, as a means of knowing whether suitable for growing berries; and if so where could it be sent for analysis? What should be the ingredients and how much of each? Understand that I am not tied down to any locality and wish to go where conditions are the most favorable.

Hanover, Ill. R. F. E.

IF we were looking for an ideal location for strawberry growing for market, we should select a place near a thriving little city of from twelve thousand upward, and, if possible, should locate between two good cities in order to have a choice of markets, so that when prices were low in one city, berries might be sent to the other.

The next consideration would be suitable soil. We should not want this situated too high or too low; if possible, have one section sloping to the south while the other slopes to the north, so that conditions would be favorable for both early and late varieties. In seeking a location for fruit-growing it is well always to choose land a trifle higher than the surrounding country, for purposes of water drainage and frost protection.

As to soil, if it were possible to secure our favorite after the conditions already named were fulfilled, we should choose a sandy loam with clay subsoil. We should like to have the loam about one-third clay and two-thirds of a sandy nature. We should not object even though it were half clay. However, it will be difficult to find all these ideal conditions in one place, and that is why we name as the first condition a good market; second, the situation of the land, and third the nature of the soil. We do this because we can make our own soil conditions by fertilizing and proper handling of the soil.

A convincing proof of the fact that the nature of the soil—whether clay, sandy or black—has less to do with success in strawberry growing than the manner in which the plants are fed, we have tried the same varieties on nearly every grade of soil and observed no appreciable difference in quality and yield. Of course, the different grades of soil were carefully studied, and each handled to bring out its best.

As to soil analysis, we think that quite unnecessary, for while a good chemist could inform you as to the content in the soil of the several elements, he could not tell you the percentage of those elements that would be available as plant food. Remember, that the strawberry is a very hardy plant and quickly adapts itself to almost any kind of soil or other condition.

THIS BEAUTIFUL PATCH ILLUSTRATES ELMER SMITH'S VICTORY OVER DIFFICULTIES

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

Chas. S. Chsse, Agent. 622 Chemical Bldy., St. Louis, Mo.
M. A. Hays, Agent 228 Dearborn St. Chicago, Ill.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

"I ONLY wish I had known The Strawberry sooner," writes one of our more recent subscribers, "for if I had had the benefit of its teachings in the spring I should not have made the fatal mistakes I have done. I already have learned many things from the magazine, and it is invaluable to everybody who grows strawberries."

And the associate editor of the famous Breeder's Gazette of Chicago, DeWitt C. Wing, who has the whole range of the agricultural and horticultural press at his command, writes us: "The July Strawberry is a strong number, especially the Correspondence School Department. This feature is capable of great enlargement and educational efficiency. No other publication has anything like it. Your Mr. Beatty clearly is a pastmaster in strawberry culture, and he has the knack of presenting information so that it will go to the spot."

From all along the line come encouraging words of this nature, and The Strawberry steadily forges to the front as the only representative of the strawberry interest, an interest growing year by year to be among the big and splendid industries of our country. One grower of small fruits wants to know if we can tell him of "a publication so helpful to raspberry and blackberry growers" as is The Strawberry to the man who grows that popular fruit. Sorry we couldn't tell of such a one, but the fact is, The Strawberry is unique, not only in its chosen field, but in its character and style, and this fact members are month by month coming to appreciate. And we do not forget for a moment that it is to our interested and interesting members of the school that much of the value of the magazine is due. Let us, instructor and member together, work to make it of increasing value to its large and growing constituency.

G. R. E., Alba, Tex. I have a strawberry patch set out this spring, and I am thinking of fertilizing it with stable manure this summer. Would this be the right time to apply the manure or should I wait until some other season of the year? 2. Will Pride of Michigan do well where Lady Thompson does? I have a piece of land that I have taken hickory timber off of and it is virgin soil. Will Pride of Michigan do well on it?

As a rule, it is very dry in Texas at this time of the year, and for this reason it would be entirely safe to scatter well-decayed stable manure between the rows of plants in August. This should be thoroughly worked into the soil with the cultivator. The plants would receive no benefit from the manure until the rains had fallen in sufficient quantity to leach the fertilizing elements out of it. In a country where there is much rain in August we should not recommend the application of manure because the plants would start feeding upon the liquid manure made by the excessive moisture, and as this is rich in nitrogen it would start a new vegetative growth, which would discourage the formation of fruit buds. In short, the central purpose should be to encourage fruit-bud development at this time of the year, and to do this vegetative growth should not be stimulated.

2. Pride of Michigan is a very vigorous grower and has an adaptable disposition which makes it easily accommodate itself to any locality. One Mississippi grower wrote us when the Prides of Michigan were in bloom on his farm that his bed looked more like a flower garden than a strawberry patch. It may be well to test it on a small scale before setting largely to this variety—advice to be followed with advantage in the case of any new variety.

S. B. G., Viroqua, Wis. We have a bed of berries set last year, and while we did the best we could to keep the weeds down they got the start of us. Is there any way we can get rid of the weeds? We do not dare mow close and burn on account of so much growth of weeds and berries, for fear it will kill the plants. Will it harm the plants to throw some dirt over them with cultivator after I mow and rake off? We have 1,000 set this year that look well and are clean as a whistle to date, but I cannot see how the ordinary land can be kept clean of weeds after runners start unless the land has been cultivated until there is no weed seed in the soil.

The best plan to follow is to mow off the strawberry vines and weeds after the fruit is all picked. After this has been done, if you think there is too much litter to make burning safe, you may rake it up and haul off the larger part of it and burn the balance. One reason we urge burning in this case is because it will destroy a large amount of weed seed, but if conditions are such that you cannot burn at all, then the litter should be raked up clean and hauled away. After this is done narrow down the rows with a common breaking plow. This will leave a row of plants about six inches wide. These plants will set on a ridge and you should go over them with a hoe, cutting out all the weeds and thinning the plants so the hills will stand about sixteen to twenty inches apart. Now take a five-tooth cultivator and run it on the ridge the plow has made between the rows. This will level the soil back to its place. After this has been done the fine soil can be drawn up close to the plants with hoes or garden rakes, and the light soil should be thrown over the crowns of each hill. We prefer doing this work with the hoe, as the cultivator sometimes throws clods or too much soil on the crowns. It is an easy matter to keep all weeds and grass out of the plants after the runners start, providing you do not allow them to g t the start of you. Frequent cultivating and hoeing will keep them perfectly clean.

P. R. S., Machias, Me. This spring I set out some strawberry plants. If I allow these plants to make four runners each, next spring at fruiting time shall I allow the mother plant only to produce fruit, keeping all blossoms off the four runner plants? If this is the way, I will get only one crop of fruit from the runner plants and two crops from the mother plant.

Both the mother plant you set this season and the runner plants which spring from it will produce berries next season, and it will be unnecessary for you to remove any of the bloom. The removing of bloom is done only in the season in which the plants are set.

E. L. L., South Easton, Mass. I am growing an early variety of strawberries for home market, and though it pleases my customers, yet the berries are very soft and inclined to rot badly. Now if these were grown in hills fifteen by thirty inches apart, instead of single-hedge rows, would it not overcome this difficulty? If so, would not the yield be fully as large, and would not the berries ripen earlier?

What you should do with such a variety as you have mentioned is to grow it in hills and keep them far enough apart so that the sun's rays may be beat upon every leaf and air circulate freely all about the plants. A dressing of wood ashes—forty or fifty bushels to the acre—thoroughly worked into the soil before plants are set, would add much to the firmness of the berries as well as to their flavor and color. Berries will very seldom mildew or rot if the sun and air have free

access to them. By making your soil quite rich and growing them in hills as you propose, this method will give you nearly as much fruit, if not quite, as when grown in the single-hedge row. And the berries, as you suggest, would ripen earlier.

E. D. G., Rochester, N. Y. I wish to know how buckwheat straw will do for mulching strawberries. Have you seen it tried? I have some bees and am about to sow some buckwheat. As straw is $10 per ton here the buckwheat straw will be quite an object to me if good for the purpose. I see no reason why it should not be excellent.

Buckwheat straw will make a splendid mulching, and in your case it will serve two purposes: that of furnishing nectar for the bees and cover for the strawberries.

B. V. W., Billings, Mont. I noticed the remark of G. Q., Theodore, Sask., that the frost wiped out his strawberry plants. Our loss is quite heavy from light freezes if plants are set out when plants arrive here. Plants propagated here are the same way if set out too early. I do not understand why a freeze does not hurt them in the East. We are 5,000 feet above sea level here. Can you solve the problem? Some varieties frost does not injure much. 2. Does too much water make berries soft and sour? 3. Will fruit buds freeze when not mulched so as to weaken and kill them?

The reason your early set plants suffer from frost doubtless is that you are located so high above sea level where the atmosphere is light and dry. We have proved by experiments that plants will stand much more severe frosts where moisture is abundant in the soil than where the soil is dry. There is nothing more injurious to the plant than alternate freezing and thawing in a dry fall. In view of this fact we would recommend later setting of plants. We have been through your section and are somewhat acquainted with its climatic and soil conditions.

2. Too much water during the maturing and ripening processes will make berries both soft and sour, and it may be well to explain here why this is true: We all know that moisture dissolves the mineral matter in the soil, and during a wet season, or where large quantities of water are used for irrigating purposes, the excessive moisture is sure to dissolve nitrates in excess of potash, and as potash is the element that supplies the fibrous quality and flavor of the berry, the lack of balance in these elements causes the berry to become soft and insipid, while the color will be less brilliant.

3. There is no question but the fruit bud would be injured by failure to mulch, and the plant would be much weakened because the alternate freezing and thawing causes expansion and contraction of the soil which would weaken the plant, if indeed, it did not loosen the roots from the crown.

I. S. V., Independence, Pa. What was the cause of many of my berries being round and flat, not pyramidal in form, the blossom end being undeveloped; they contained a core? We had late frosts last spring—had this hurt them? The ones that were nice were real nice, but half or more of them were such as I describe to you. I had removed the mulching from the top of the rows about the middle of April. There were several frosts afterward, but I tried to recover my plants with the mulching before each frost, but possibly did not get it done.

2. In the narrow-row system should plants be allowed to grow closer than six inches to each other?

3. Then after the plants are established at the right distance, should all runners be pinched off as long as the bed is in use? This I know would mean much labor, but I don't expect to have more than three-fourths of an acre in strawberries and I want to make them pay me $2.50 per day for each day's intelligent labor put on them, and can I do this?

4. Our market will be local and mostly among private customers, and I have some rivalry in the business. This stirs one's ambition to grow the best for which there is the best demand and they command the best price; and as I am an amateur I need the best of advice from experienced sources, for by having good advice and following it I hope to learn in a short time what it took others years to obtain.

5. I know that my plants were much too thick in the row this year, and after gathering the berries in June, I lifted and transplanted many of the most healthy, stocky plants, trimming the tops all off but one young stalk. These appear to be growing nicely. What are my chances for a crop from these next spring? I will give them the best of attention and manure them late this fall.

6. During the early and middle part of June the rose bugs are here in such numbers that they are almost a plague to us. They eat all kinds of vegetation, even occasionally, weeds. Can you tell me the way to prevent their attacks upon our fruits? Spraying at this time injures the fruit (as I have learned at much expense) and still does not make any visible effect upon the countless numbers of bugs.

7. Can you tell me of a publication that is as valuable to the raspberry and blackberry grower as The Strawberry is to the strawberry man? If so please do so, giving address.

8. Would it be a good plan to scatter wood ashes on ground—the right amount—soil a little sandy, this fall just before I plow and sow to rye, which I would plow under next spring, then set strawberry plants out, then follow with a good coating of manure in the fall?

There is no doubt that frost was the cause of the poorly formed and hard-cored berries. The petals of the bloom protect the under part of the cone that forms the berry; here the pollen takes effect, and here seed and flesh are developed, whereas the end of the cone is fully exposed to frost, and when affected, both anther and stigma are destroyed. Of course, a very heavy frost may destroy the entire cone, when there will be no berry at all. These hard berries result from several other causes. Sometimes dust or rain at blooming time or improper pollenation will have this effect. There is no doubt that your covering the plants when blooming affected the plants as deleteriously as did the frost.

2. No two plants should grow closer one to the other than six inches. If allowed to do so they will not have sufficient room in which to develop.

3. By all means keep the surplus runners off after your ideal row is formed. Every dollar spent at this point will return you two at fruiting time.

4. Competition always is the life of trade and a stimulus to better things. The man who grows the best fruit and picks and packs it in the most attractive manner is the one who takes the lead and gets the highest prices. His customers, like Oliver Twist, call ever for "more."

5. The fact that your June-set plants are growing vigorously and that you are going to give them the very best of attention, indicates that there will be enough berries next season to more than pay expenses. Don't let these June-set plants make more than two runners each.

6. The rose-bugs, or chafers, are a difficult problem. They are not gross

Strawberries Keep Their Color In the Wide-Mouthed, Sure-Seal, Air-Tight

ECONOMY JAR

Fruit can't spoil in an Economy Jar

STRAWBERRIES never fade when canned in the Economy Jar.

The Economy Jar is the only jar made that is really hermetically, positively, air tight.

That is the reason strawberries canned in the Economy keep their color.

The air that filters through a rubber ring or seeps under the edge of a heavy, bunglesome glass or zinc top, bleaches the berry, fades it to a muddy, forbidding color and robs it of its delicious, appetizing flavor.

The Economy Jar is wide mouthed. The Economy Jar seals itself with a gold lacquered cap (acid proof) that is as cleanly and as sure a barrier against the air and against bacteria as the crystal flint glass itself of which the Jar is made.

Use the Economy Jar according to the simple directions and your strawberries will come onto the table as plump and luscious and red as the day they were picked.

Send us the name of your dealer and state if he sells the Economy Jar, and we will send you free a booklet of recipes, containing the finest recipe for the canning of strawberries known to the culinary art.

KERR GLASS MANUFACT'RING CO.

265 Hoyt St., Portland, Ore.

Eastern Office, Dept. R, Philadelphia, Pa.

feeders, and for this reason it is hard to make an arsenical spray strong enough to kill them without at the same time destroying the foliage. However, five pounds of arsenate of lead, dissolved in three gallons of hot water, adding enough water to make fifty gallons, will safely do the work. One consolation lies in the fact that the rose-bug remains only four weeks. They go in pairs and as soon as through mating the male dies, shortly after which the lonely female, tired of struggling with life's problems by herself, goes to join her deceased spouse. Do not use arsenate of lead when berries are in fruit. The surest and best way is to prevent the coming of the insects by clean cultivation and by keeping clean all the fence corners.

7. There is no publication, so far as we are aware, that treats upon the raspberry and blackberry, or any other of the small fruits, as does The Strawberry in the case of its particular subject.

8. Scatter forty or fifty bushels to the acre of hardwood ashes at the time you mention. The rye will take up the larger part of the fertilizing element in the ashes, as well as the plant food which the lime in the ashes will make available, and hold it in reserve for the use of the plants the succeeding spring. And let us compliment on your interesting way of asking questions.

E. R. K., Sussex, N. B. Will you kindly describe rust in The Strawberry? Do the stems of the leaves darken and become hollow for an inch or more from the crown? I have lots of berries, but deficient in foliage. The ground is not lacking in nitrogen, as it has been rotated in clover for a number of years.

Rust is a fungous growth that spreads by spores, and, like all other affections of this nature, generally attacks the weaker plants, and for this reason rich soil is necessary to force a vigorous growth which, to a certain extent, will fortify the plant against its attacks. Some varieties are more susceptible to fungi than are others because they are more tender in the leaf tissues. We have proved conclusively that rust may be bred out of plants having this tendency by selecting runner plants from mother plants that show the greatest powers of resistance, and that it may be kept out by careful selection and continuous spraying. Rust is first observed in the appearance of small brown spots on the upper side of the leaves of the plant. The injury is scarcely noticeable until it eats into the tissue of the leaf and comes into contact with the chlorophyl cells, at which time it works down into the leaf stems and body of the plant, and this is what causes the brown spots. As time goes on rust will spread until the leaf dries up and becomes entirely useless. There is no cure for rust, so far as known, but a complete preventive is found in Bordeaux, as no fungi can take strong hold upon a plant when it is "copper-plated" with Bordeaux mixture. We have demonstrated this beyond doubt by experiments in the experimental beds of the Correspondence School, where more than fifty varieties are under observation. Those that are sprayed fairly glisten with health, while those which are not sprayed are less bright and an occasional leaf-spot appears.

A. F. B., Cedarburg, Wis. I set out about one-half an acre of strawberries late in May and a dry, hot spell followed the planting, killing nearly half of the plants. I intend to grow the runner plants now forming in pots to fill out rows (single and double hedge) where runners from the established plants cannot reach. Shall I be able to secure a profitable crop in this way, next season? 2. Does it pay to let the pot-grown plants, set out in August, form runners? 3. What is the best way to prepare land now in clover and timothy of several years' standing, for strawberries to be set out next spring; soil is a black loam with clay subsoil? 4. Are forest tree leaves any good for mulching? 5. In answer to a question in July number you state you never heard of mice injuring strawberry plants under mulching. I used corn stalks one winter and had the plants eaten off clean. Have also had this happen under leaves and oat straw. Mice usually keep out of cut corn stalks. Would this make a desirable mulch? 6. If mulch is put on in winter should it be removed in spring and ground cultivated and mulched again before fruiting, or should mulch be left between rows with no cultivation?

Your plan of letting the runner plants take root in small pots is an excellent one, but let us suggest that you fill these pots with loose, rich soil, then sink them in the soil near the plants that are to furnish the runners. The sinking of the pots will keep the soil in the pots from drying out. Place the node of the runner wire on top of the soil in the pot, and lay a small stone or quantity of soil on the runner to hold it in place. In two or three weeks the roots of these little plants will have penetrated the entire mass of soil, at which time it may be transferred to its permanent place. In doing this it will be well to select a day following a rain. A hole should be made large enough to receive the entire contents of the pot, and if you will take a common case knife and run it around the edges the soil will come out in a compact mass, holding every root in its proper place. After it is placed in the cavity the top of the pot-soil should be on a level with the surface of the land, then the soil should be firmed in around it. While these may not produce a large crop of berries the following spring they will yield more than enough to pay the expense of setting them, besides filling in your rows and greatly improving the appearance of your field. It also fills out the beds for a bumper crop the second year. Let it be understood that under normal conditions we do not favor pot-growing in strawberry production; but an emergency frequently exists, as in the present case, and we must do what we can to meet it.

2. Do not allow them to make runners, but pinch them off as soon as they appear, which will give the plants many advantages in their work of self-development.

3. Your clover and timothy sod should be broken up as soon as possible after the hay is cut, and the soil thoroughly prepared by several harrowings. The only fall crops we could recommend so late in the season would be turnips or late cabbage. If it were earlier, potatoes would be an excellent crop. Neither can we recommend the sowing of rye on newly

THE BUSINESS-LIKE STRAWBERRY FARM OF JOSEPH MILLS, GALION, OHIO

plowed sod land because to do so would mean the re-breaking of the ground in the spring, which would turn the sod on top and this would interfere with cultivation. However, this would be all right, provided the broken ground was gone over with a large disc harrow and the sod gone over several times, thoroughly cutting up the pieces of sod that had not decayed during the winter months. Two years ago we prepared a piece of sod land in this way and the results were in all respects satisfactory.

4. Leaves make a very good mulch, the only objection being that they easily are blown off by winds.

5. The locality of your strawberry bed must be near a place badly infested with mice which hibernate there. We do not doubt that mice, driven by hunger, would injure plants under any kind of mulching. The shredded or cut cornstalk is ideal for mulching.

6. If you intend to cultivate your fruiting bed do not remove the mulching, but in the spring, after you have spread it apart from over the row for the plants to come up through, that which lies between the rows may be raked up close to the plants, leaving a bare space which may be cultivated. Be careful to start this work only after all danger from frost is past. There is no question but that it pays to cultivate the fruiting bed if the work be properly done. At the proper time full instructions as to this work will be given in The Strawberry, and made so clear that it should be impossible for our members to make a mistake in carrying them out.

C. P., Bayfield, Wis. We have a patch of strawberries grown over with grass. There is a good stand of clover on the land. How would it do to cut the grass for hay, pick off all the berries, then plow the second crop of clover under this fall, and prepare it for strawberries next spring? 2. There is some crab-grass in places. What is the best way to get rid of this grass in the strawberry bed? Would you dig up the roots of the pest at the expense of an occasional strawberry plant? 3. We have a fine bed of strawberries that is growing the second crop. The patch is in good condition. Would you advise keeping it for another crop? 4. How would liquid manure do as a fertilizer for strawberries, and how best may it be applied? 5. The snow falls here after the first frost in the fall and stays till April is well advanced. Will the snow make sufficient mulching without any straw? Will rye straw do for mulching? Our strawberries look fine this year and are loaded with fruit. We are following your cultural methods where practicable.

It will be all right to mow the grass for hay where the old berry plants are growing, and to turn under the sod this fall preparatory to setting plants next spring. You possibly might get a crop of turnips or late cabbage from this ground this season.

2. Crab-grass is a mean thing to get rid of once it gets a start, as wherever there is a joint it will take root and quickly take possession of the ground. The best way to do is to practice such cultural methods as will prevent a start being made; but in your case, where the grass already has taken hold, we would recommend a thorough hoeing and hand-cleaning of the bed. Where the grass grows directly in a hill of plants, if you will take the plant in one hand and hold it firmly in the soil while pulling up the grass with the other, the grass may be taken out without injury to the plant. The roots of this grass should be turned up to the sun so that they may not again take hold of the soil.

3. We would not advise anyone to permit a bed to fruit longer than two years, because the plants have become so exhausted as to be unable to produce a good crop of smooth berries.

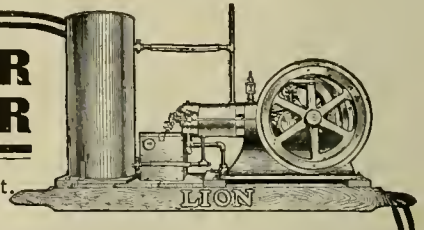
4. Liquid manure when properly applied makes a fine stimulant for plants. The proper way to apply it is to take one pint of the liquid and pour it around the plant, but not on the foliage. This should be done after a rain when the soil is moist; if applied when the soil is dry the plant will take up the raw liquid manure; overfeeding on the element nitrogen. Do not apply liquid manure in the fall when the plant is building up its fruit-bud system.

5. While snow makes an ideal mulch, other mulching should be applied for the purpose of keeping berries clean during the fruiting season, and rye straw will serve this purpose finely. It would be best to apply the mulching before the first snow falls, but if conditions make this impossible, it will be all right to scatter it on top of the snow.

E. L. P., Iron Mountain, Mich. My strawberries are all grown by the hedge-row system, and are producing an abundant crop this, their first bearing season. Now, as to treatment after bearing, in preparation for next season: Your directions as to mowing, burning over, harrowing, etc., seem to apply rather, if I catch the spirit of them, to beds that have been grown by the matted-row system. Would you advise the same treatment when grown, as mine have been, in strict hedge-rows? Or would it be better merely to let the hedge-rows widen out into narrow-matted rows for next season? In the latter case, would it be best to strike out the oldest or original mother plants with a hoe? If cut and burned over, will not the forming of new plants for the matted row be delayed? I have read, also, that where the hill-system was used, it was profitable to fruit for several seasons before turning under; and as the hedge-row, restricted, is in effect a continuous hill, had reasoned that this method might apply.

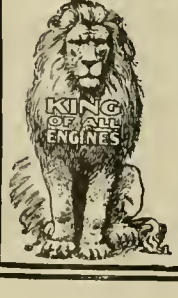
In preparing the narrow-hedge row for second crop, the same treatment is given as in the case of the matted row. In narrowing down the hedge row simply throw the soil from each side of the row into the center, not going close enough with the plow to cut out any of the plants. After the furrow has been thrown from each side of the row this will leave the row on a ridge about six inches wide. Then you should go along the rows with a hoe and cut out all of the old plants, leaving the healthiest and youngest plants about sixteen or twenty inches apart in

A READY POWER AT ANY HOUR



That's the kind of a power you want. You do not have to wait for steam, or until the wind blows, before you can pump water, grind feed, saw wood or the hundred and one other jobs about the farm, if you have a **Lion** Gas or Gasoline Engine. Have you ever thought just what a saving of time, labor and money it would be to have such a practical power **always ready to operate** your various machines on the farm, in the shop, printing-office, or—**anywhere?**

The LION Engine



is such a power. It is **simple** in construction, **practical** in operation, and **economical** in the use of fuel. You do not require the services of an engineer, as anyone can operate it. We send the **Lion** engine

Direct From The Factory

on a **ten days test trial** and give explicit instructions and directions for setting up and operating it. Write now, stating your power needs, for our easy payment plan. Remember, we send **the engine**, not the agent.

LYONS ENGINE CO., • • Lyons, Mich.

the row, after which the ridge between the row may be leveled down with a five-tooth cultivator or harrow. Fine soil should be drawn up close around the plant and a small amount of soil placed over the crowns of each plant. This work can best be done with the hoe or garden rake. The bed should be burned over within two or three days after the plants have been mowed off. If left longer than this new growth will start and there will be danger of the fire injuring the plants. In a few days after the plants that are left in the row have been covered with soil, they will send up a new and vigorous growth, and these plants will make runners from which a double-hedge row can be formed to furnish the succeeding crop. As to burning over retarding runner making, that depends somewhat upon weather conditions after plants have thus been treated. In making experiments with plants that were burned and others that were not, we find the plant that never has had its foliage mowed or burned, starts runner-making much the earlier? In fact, runners are starting while fruit is ripening. However, the runners on these plants are not nearly so strong as those which are mowed off and burned over. We would not advise allowing any bed of plants to fruit more than two seasons.

F. M. M., Gurdon, Ark. In April, 1905, I set out 1,500 plants, consisting of Texas, Glen Mary and Dornan. They were grown in single-hedge row, two feet apart by hand cultivation. Now, this 17th day of April, my plants have an immense foliage and literally are covered with green fruit and blossoms. At present it looks as if the Glen Mary and Dornan will ripen before the Texas. Why is this so?

It is sometimes true that atmospheric and soil conditions will develop the fruit buds of some varieties earlier than those of others, owing to the abnormal conditions of the particular season, and this phenomenon has been unusually observable this year.

J. L., Coshocton, Ohio. I have a garden, the soil of which is mostly composed of street sweepings, and I have been manuring it with stable manure every year for three years. My strawberry plants make an immense growth, but are not as prolific as I think they should be. The ground is very loose and filled with humus. What shall I do with it to make the plants more prolific?

The trouble with your plants appears to be that you have been overfeeding them. Street sweepings of the kind you speak of are especially high in nitrogen, and too much nitrogen causes an overdevelopment of foliage at the expense of fruit. You appear to have so encouraged your foliage growth as to lessen greatly the fruit-bearing capacity of your plants. We should advise you to refrain entirely from putting on any more fertilizer and to cultivate only when necessary to keep down the weeds and hold moisture in the soil

C. L. C., Skaneateles, N. Y. May I take from my strawberry bed, set out in April last, runners for a new bed to be planted the first of September next?

As we understand your question, you are intending to allow these plants to fruit this season, and after a strawberry plant has produced a big crop of berries it is pretty well exhausted, both from pollen secretion and seed production, and to take runners from plants that have fruited is contrary to the nature of things. If you intend to set plants in September, you should take the plants from those set this spring.

G. W. F., Woburn, Mass. I have some Massachusetts Klondike strawberries. They now have some green berries on and I note that the leaves are curling up some. Is it leaf roller that causes this?

The variety you name has a very tender leaf tissue, which makes it subject to mildew. This is a fungous growth which can be controlled by Bordeaux mixture, but we would not advise you to do any spraying while plants are in fruit, as the vines undoubtedly will carry the crop through to ripeness without loss. The leaf roller does not roll the leaf, but draws it together in a flat fold.

L. A. H., Blenheim, Ont. Is there any danger from curl-leaf or does it affect plants to any extent? 2. Will lime be all right for spraying that has been slaked with water and kept covered, or does it lose its strength? 3. What is your opinion of the wax-lined paper berry-box, and would you advise it to be used in preference to the wooden ones? And at what prices may they be had? 4. Can you give me any advice concerning the Kewanee water-supply system in the country, and what would be the cost of installing this system?

The fact that the leaf curls up indicates that the plant is affected by a fungous growth called mildew. Anything interfering with the foliage is bound to affect the development of the plant, because the leaf of the plant is both the lungs and the digestive organs of the plant. The prevention is Bordeaux mixture.

2. As your lime was slaked in water and kept well covered it has not lost its strength, and will still serve the purpose as part of your spray material; but be sure and stir thoroughly before using.

3. The wax-lined paper box is undoubtedly a success. It is a matter of individual preference as to whether the wooden or the paper box is the better. For prices please write those manufacturers whose advertisements appeared in The Strawberry. You may depend upon any one of them in every respect.

4. As to the Kewanee water-supply system, we are assured it is a complete success. Readers of The Strawberry now having the system in their country homes advise us that it is all its manufacturers claim for it. The Kewanee Water Supply Co., Kewanee, Ill., will be pleased to furnish you all information as to prices, cost of installation, etc.

J. R. B., Belvidere, Ill. I am not clear as to your recipe for using both Bordeaux mixture and Paris green in cases where both insect pests and fungous diseases are to be attacked at the same time. Am I to understand that we are to add to the Bordeaux mixture another mixture of forty gallons containing the Paris green, or to mix the Paris green and one pound of lime in two gallons of water only, mixing this into the fifty gallons of Bordeaux mixture? 2. I have one-fourth acre of strawberries which has just been fitted, according to your methods, for second crop. I have applied between the rows 100 pounds of fertilizer which analyzes as follows, the figures representing percentages: nitrogen available, 2.50; equal to ammonia, 3.00; phosphorus, total (from bone) 10.91; phosphoric acid, total 25.00; equal to bone phosphate of lime, 55.00. My land is a heavy clay and had been seeded to clover the year before these plants were set. Does the analysis indicate a well-balanced fertilizer for my soil? I am a member of your Correspondence School and think it the best training for a strawberry grower to be had anywhere.

Mix the Paris green and lime in two gallons of water, adding this to the Bordeaux mixture, making fifty gallons in all. Glad to have you call attention to this, as we desire that every point shall be made perfectly clear to each reader.

2. The fertilizer you have used makes a very well-balanced plant food, and we have no no doubt will give you excellent results. The value of this, as well as of any other fertilizers, will depend upon the mechanical condition of the soil. Commercial fertilizers always give better results when used in connection with stable manure.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and SPECIAL OFFER TO YOU.

R. R. FISHER, Pub., Box 88, Freeport, Ill.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN,
Advertising Manager,
1603 Manhattan Bldg., Chicago, Ill.

SUBSCRIPTION PRICE:

United States and Canada - - -$1.00
Foreign - - - - - - - 1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

AUGUST, 1906

THE cover-page illustration this month represents an Iowa strawberry patch with a background of orchard trees that gives to it a scenic effect at once unusual and beautiful. This is a scene in the fields of George A. Schurk of Fort Madison, Iowa, who, when he learned the use to which his handsome picture would be put, wrote: "I didn't think it good enough for The Strawberry," a degree of modesty quite uncalled for in such a case, we are sure our readers will agree. Such a picture as Mr. Schurk has contributed will not fall to encourage others to take up the work of strawberry culture. Success inspires, heartens, helps others to win success. The moral responsibility that rests upon us to succeed is not wholly personal to ourselves; we owe it to the world to succeed, for a good example, like the pebble cast into the sea, extends on and on to the very confines of the sea of time. So let us succeed both for our own sake and the sake of others, and make two strawberries to grow in 1907 where but one grew in this year of grace.

AND while we are speaking of pictures, let us remind our friends that the photographic contest still is on, and will be until the close of the growing season. We very much wish to have photographs of the field prepared for second crop. That is, after you have mowed and burned over the patch, and the new and green plants are once more filling the space allotted them, a photograph should be taken to show just what that second growth has been. And be sure to make a note of the day the burning was done, and the date the photograph was taken, so that we may see just how quickly the marvel of nature has been wrought and the old bed, with its dead leaves and perhaps its insects and fungi, has been renewed and a start made for a bumper crop in 1907.

WE doubt if any publishers in the world ever received more heartening words from their readers than come to us by each day's mail. From far away Australasia they come, from British Columbia, from the continent of Europe, and from our friends who claim the distinction of being Americans we receive such cherry inspirations as make light the burdens of the day. But we are not altogether satisfied, because that list of subscribers is not expanding to the 50,000 size as rapidly as we desire, and we wonder if our friends could not help the good work along if they were to try a little. We are just one big family, and we believe every member of it desires to enlarge the family circle in order that the influence of The Strawberry may be extended in the interest of better horticulture and more and better fruit for the people. Please be ready to respond when we take up the matter of definite plan with you a little later.

HAVE you had moments of disappointment this season, when it appeared at times that the strawberry crop must go? In some sections the dry winter, in others, the dry spring, in still others the torrential floods that pounded the young and tender plants into the soft earth, created consternation in many a heart, and hope gave place to despair. In many instances, however, the results were better than the outlook promised, and many a man awoke to the consciousness that a crisis was calling for his best thought and effort and, stirring himself for the conflict, fought off the threatening evils and won the day, having as a result his strawberry field in good condition for next year's crop. But even the man who lost should remember that the man who goes into partnership with nature sometimes will be overwhelmed by her caprice; he should remember that the corn kings have won their thrones and held them by conquests most heroic; that wheat kings and cotton kings and fruit kings have their gray days and their seasons of disheartenment. Don't let a little thing like that disturb the serenity of your life. Keep smiling, and keep at it everlastingly, and success will be your portion.

LATE strawberries grown in the North have proved their right to consideration this season as opening up an attractive commercial opportunity. We find this item in a journal published in the Upper Peninsula of Michigan under date of July 5: "Daniel Nehmer & Sons, of Ontonagon, are picking strawberries. They have twenty acres of bearing plants, about double the acreage of last season, and the yield is expected to be fully 2,000 bushels. They say that conditions so far have been favorable for a good crop this season. The plants are loaded with berries, which are now beginning to ripen." Reports from DeTour, Mich., also advise us of the splendid success that is crowning the work of strawberry growers in that part of the state. Strawberries by the carload should be grown in that vast region of Michigan, Wisconsin and Minnesota popularly known as the "Lake Superior region." Coming into market from July 1 to 10 they always could bring the banner prices of the season.

THE strawberry season may be extended, says S. H. Warren of Weston, Mass., by setting the earliest varieties on the south side of a fence or of a hill; where the sun warms the land early, therefore producing an early growth. Such land will produce fruit a week or ten days earlier than other localities. To extend the season at the other end set some of the latest varieties on the north side of a fence or on a northern slope. By so doing the season can be lengthened a week or ten days at the latter end.

"THIS is the day of the trained man," says President Henry S. Pritchett, of the Boston "Tech." "In competition with him, the untrained man, or the poorly trained man, cannot maintain himself. Do not be afraid of too much theory. Never was good practice which was not preceded by and based upon good theory. Let your theoretical training be broad and deep. It is your only sure foundation for the best work."

ONE is hardly apt to be thinking about furnaces at this time of the year, when mercury ranges up among the nineties, but it is right now that you should be preparing for the cold and stormy days ahead, and so we call your attention especially to the Schafer Furnace Co.'s advertisement in this issue, confident you will find it to your interest to take up this matter now. This company makes an unusual offer. They will ship a heater for $10 down and ask no profit until the user is satisfied. The company issues an illustrated instructor free. We suggest that you write for it at once. The Schafer Furnace Company is located at Youngstown, Ohio, and a postal card will bring you full information and the booklet.

THE season for the sprayer is with us, and during the next six weeks it should be used with great frequency in the strawberry bed to the end that the plants may go into winter quarters free from any insect pests or fungous spores, thus to reach fruiting time with vitality unimpaired and capable of producing big crops of luscious berries. For this work it would be difficult to conceive a more convenient sprayer than the Lenox Knapsack, which our readers will find advertised in this issue of The Strawberry. Read carefully what the manufacturers say about it. Whether you have a big field or a little patch, the sprayer is an essential, and the Lenox is just the thing to fill the bill. Address the Lenox Sprayer Co., 1302 Broadway, New York.

SEASON IS LATE

WE MUST UNLOAD

Lenox Improved Sprayers $3

Two for $5.00

GIVE YOU THE BENEFIT OF THE SEASON

This is the Regular $5 Sprayer. Prompt Shipment Guaranteed

DELIVERY IN TWENTY-FOUR HOURS

$3.00
2 for $5.00
Just Now!

A Woman Can Use It! The spray in the vineyard is not exaggerated---it is actual and the truth. Made to wear and to work. Press your thumb upon the bulb; you get your spray. Stop your pressure and you stop the spray. Pumps every drop out until empty. No air pump business; no stopping every few feet to PUMP AIR or to swear.

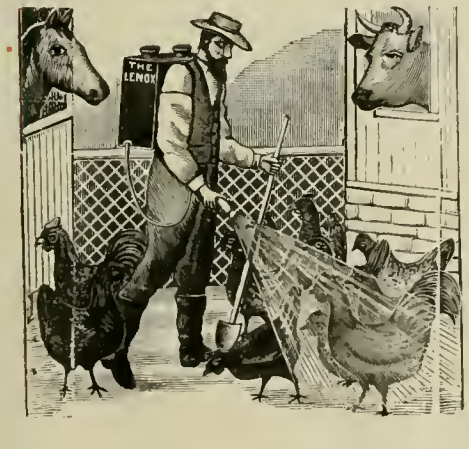
THIS IS THE SAME SPRAYER we had a whole page in the June Strawberry about, and the Kellogg people will tell you so. Order two if you are able, if you are not, order one anyway. It is the regular $5. Just now you get two for $5. A potato field, a cabbage, or a strawberry patch or a vineyard can be sprayed easily and in less time than to get the big pump out. Lots of times you can use a knapsack when you cannot a barrel pump. Handy at any place.

Let John Sling it on his back. with strained lime milk, white wash the hen house, the spray will get into all crevices and cracks. The old hen, the rooster and the whole chick family will crow and bow to you with thanks. They will pay you back with nice fresh eggs and several times over.

Spray the cow, the stable—in fact. anywhere cleanliness pays.

During July, August and September, when the cattle are suffering from the sucking pest, the constant biting, and sucking of the blood, keeps the cow poor. Spray—spray—use our "Sure Destruction" which we send free, intended to kill the San Jose scale, but excellent to destroy all infestation of livestock.

Use one part to fifty of water every other day for a spray over the cow at this time of the year; it is invaluable, particularly around and between the horns and in the hair of the cow where the lice breed and suck the blood. The cow after a few treatments will lick your hand and give you more milk and better qualjty.



These Little Blood Suckers breed by the millions. Could the poor cow talk she would tell you a pitiful story about her agony, about her scratching, and about her trying to reach with her teeth her itching sides, why she scratches so much against the fences, and why her udder is half shrunken, and why the people complain so much about her milk. But poor Betsey, she can't talk. During July and August, when the cow turns her head, looks at you pitifully, switches her tail, speakingly, it would mean, **"Can't you help me?"**

A SMALL CAN "SURE DESTRUCTION" to San Jose scale, to mix with 50 to 100 parts of water, will be sent free with each sprayer. Used as a spray it will destroy all living nuisances in crevices and cracks, whether in the trees, stable or hen-house.

This is the Sprayer You Get Just Now for $3.00, or Two for $5.00

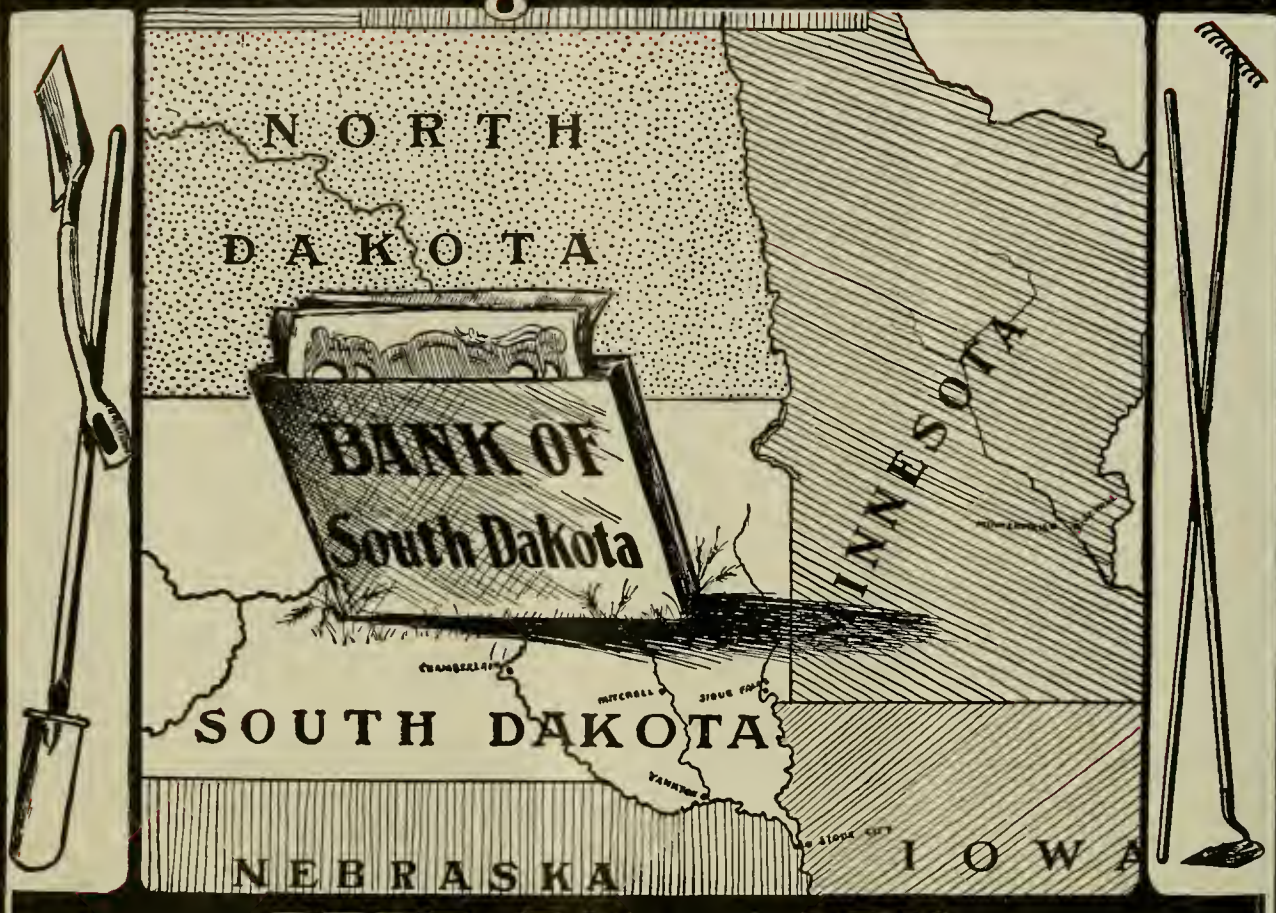
Actual price is $5, but season now a little late, we rather sell at $3 than wait for next season to get $5

You will never get a Lenox for $3 again. If you want one or two, DON'T TALK LONG. Send in your Express Money Order. No lengthy letters necessary; no explanations needed. We will know what you want and that you want it quickly, too. But give us your address very plain. EXPRESS RATES FROM NEW YORK ARE LOWER THAN FROM ANY OTHER POINT.

Remit by Express Money Order. *No checks if you are in a hurry.*

LENOX SPRAYER CO. 1302 Broadway (Herald Square) **NEW YORK**

The land that grows Bank Accounts



DEEP RICH SOIL MEANS LESS TOIL

The Land of Plenty....

Rich soil, a mild climate, and abundance of water have made South Dakota one of the best agricultural states in the Union. The soil of Lyman county is unusually rich. It is a black loam with yellow clay subsoil. The extension recently built through Lyman County by

THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY

Has opened up a part of that state hitherto sparsely settled. South Dakota is long on wealth but short on people. The total population of the state is 455,000. Bank deposits on January 29, 1906, amounted to $35,287,274, or an average of $77 for each man, woman and child in the state. There are golden opportunities for the homeseeker and the small investor. Good land can now be bought at $10 to $15 an acre. Homeseekers excursions—one fare plus $2 for the round trip to South Dakota points every Tuesday this year.

South Dakota literature for two cents postage

F. A. MILLER
General Passenger Agent
CHICAGO

R. C. JONES
Michigan Passenger Agent
32 Campus Martius, DETROIT

September 1906

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

ONE LETTER OUT OF THOUSANDS LIKE IT

MR. THURSTON'S PATCH OF "PEDIGREES"

Beaver Dams, N. Y.. Aug. 10, 1906

R. M. Kellogg Co.,
Three Rivers, Mich.

Gentlemen:

In April, 1905, I set out one-thirteenth of an acre to strawberries. One-third of this patch was set out to Armstrongs, Brandywines and Samples, taken from an old run-out patch of berries that had been fruited for several years.

The remaining two-thirds were set out to your Thoroughbred plants. The varieties were Parson's Beauty, Sample, Aroma and Klondike. The soil was moderately rich clay loam, the plants were given good cultivation, kept free of weeds, and grown in the single-hedge system. I lost about 100 plants in August by white grubs.

In November I scattered eight wheelbarrow loads of well-rotted horse-manure on this patch, then mulched with oat and buckwheat straw. Removed mulch from top of row in April, and soon after the fruit buds started, we had a freeze that I thought had put me out of strawberries for this year at least. The fruit stalks were frozen so badly that they all turned black, and withered up just below the blossom buds. But in a few days up came more fruit stalks, and the crop looked promising again. Then just as they were getting white with bloom, we had two more frosts in succession. During the frost I had part of the patch covered up and kept fire around the plants that were not covered, but with little success, as nearly all the blossoms turned black and dropped off. At this time I felt quite discouraged, but after a week of good weather, I noticed a large number of new fruit stems starting from the crowns and I began to think there was no such thing as downing a Thoroughbred strawberry plant.

The remainder of the season was very favorable. We picked our first berries June 16; last picking was July 10; in all 518 quarts, which sold for $51.60, all disposed of at our door, and we were unable to supply half the demand. Just sell a quart of those big red fellows, and the next day the purchaser would be back and want a bushel. Seeing that this is my first experience with strawberries, and that I only had a few minutes to devote to their care, morning and evening, as I am a railroad man and work twelve hours per day, Sunday included, I feel very much encouraged by the results obtained, and have one-fourth acre set out this year to Thoroughbred plants, and at present writing they bid fair to be record breakers.

And now a few words about Pedigree Plants. The eight rows of my patch that were taken from an old bed were fully double the care that the sixteen rows of Thoroughbreds were. The former seemed to make a good foliage growth and as plant makers they surely never had an equal. In fact, keeping the runners off those eight rows was the worst of my trouble. They put forth very few fruit stalks, especially after the frosts. And then when it came to picking they were plainly outclassed.

From the sixteen Thoroughbred rows we picked 408 quarts, and we did not even sort them until the last picking, and the 110 quarts from the "other kind" of plants were nearly all of an inferior size and quality.

I would not attempt to raise strawberries without your Pedigree plants and your very interesting and instructive and helpful magazine, any number of which is worth the yearly subscription price.

Yours truly,

F. A. THURSTON.

Beaver Dams, Schuyler Co., N. Y.

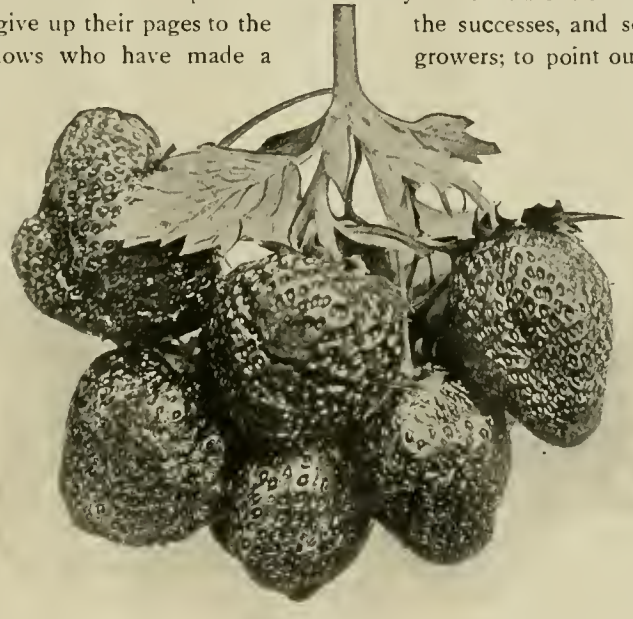
THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 9 Three Rivers, Mich., September, 1906 $1.00 a Year

SUCCESS is the goal to which the steps of every man possessed of interest in life are directed; it is the banner, ever waving aloft, that inspires him to new endeavor when the days of doubt and uncertainty come. Not long ago the editor of one of the leading agricultural periodicals in this country sent us a letter from a Montana subscriber, in which the latter asked: "Why don't you tell us of some of the failures—you are always describing the work of the fellows who make a success of their undertakings?" That letter of inquiry is worth thinking about.

Suppose that for one single issue the thousands of publications in this country should consent to give up their pages to the lugubrious narratives of the fellows who have made a failure of their undertakings. Try to imagine what the effect would be. It is safe to say that insanity and suicide would be the direct result of such a happening. This being true, what may we learn from this supposition and its possible results? Certainly this, at the least: the importance of looking toward success, of thinking success, of acting success, if we would actually achieve success.



And what right has failure to a place in our thought? What are its claims to our consideration? Why, in other words, should that editor give a second thought to his Montana subscriber who was dissatisfied because his sort of people were not recognized in the columns of that paper? Think it over and you will see that failure is the worst form of negation—it is the outcome of a negative character; one who always says "don't," and always fails to do things that ought to be done. Success, on the other hand is positive, vigorous, uplifting, inspiring. It takes hold of the wavering and the discouraged, and say to him: What has been done you may do, if you will but do the right thing. Keep on, be patient, act intelligently, work faithfully. Success is not of mushroom growth—it is of continuous development; it not only brings you joy and satisfaction in the ultimate, but makes you a stronger and better man in the very process of achieving it. Let us, therefore, refuse to give room for failure in our mind, persisting in our march toward success; and let us thank the editor who refused to fill his columns with the tales of the men who failed. For had he done so he would only have made other failures inevitable.

It is the mission of The Strawberry to inspire hope and confidence and courage, to strengthen faith and resolution, and help all who read its pages to attain that order of success that means not only material satisfaction, but deep and lasting pleasure in the things worth living for. It believes that no other line of work offers to the men and women of limited means so wide an opportunity, one that lies so close at hand and is within the easy reach of the ones who must earn a livelihood, as does the production of strawberries for market. And it knows from long observation and broad experience that no other avocation will give more joy and satisfaction to those who take up this work for recreation during the hours when the daily toil is laid one side. To bring to its readers, therefore, the successes, and sometimes the mistakes, of strawberry growers; to point out the way in which the mistakes may be corrected and success be accomplished—this comprehends in great part the particular work of this periodical.

What this has meant to the men and women in the strawberry fields of this country we are now, happily, given some opportunity to realize, for the letters that come to us from every state in the Union and from other lands as well, speak of the encouragement and practical help this periodical has been to them. They tell us that something The Strawberry had to say helped them to turn what portended failure into complete and gratifying success; that the cheery word, reaching them just at the moment of their need, pointed out the way to meet and overcome threatened disaster, transformed the entire outlook and gave them new hold upon the world.

In one very large and important sense there ought to be no such thing as failure in this splendid world as ours. No one may be said to be a failure who has done his part, kept good faith with his opportunities, made the most of his chances, and through it all has kept himself in tune with the higher harmonies of life. To amass a fortune may not be called success. We have seen during the last year that the greatest failures on record have been made by those who are called multi-millionaires. Let us remember that no matter what it be, "no evil thing may be success, and no good thing may be failure."

We are just beginning another season in strawberry culture—for it must not be forgotten that the preparation of the soil in autumn is one of the most important first steps to success with strawberries next season. Let us begin right and do right all the way through. From the putting of the plow into the soil until the last berry is marketed, let us follow the best methods

we know or may learn. Then, may we, as a result of actual experience say, in the matchless eloquence of Cardinal Richelieu: "In the bright lexicon of youth there's no such word as fail!"

Getting a Home of One's Own

I AM a young man of twenty-three years, in very moderate circumstances and possessed of limited education. I want a home of my own, and have been thinking that if I could get ten acres of good berry land near a good market and get started in the strawberry line, I would have the problem solved. What do you think of it, and what would you advise one in my situation to do who is relying on your most valuable publication for advice?

Pellstown, Mich. G. W. R.

SUCH a letter suggests a vast field of possibilities, and we should not do our full duty in the premises if we failed to impress upon you how great are your opportunities. First, we must take note of two facts: you are only twenty-three years of age, and you are possessed of but limited education. One having your native intelligence and foresight ought not to let his first great opportunity pass, and that opportunity is expressed in the one word Education, which really means Preparation for Life's Work. A young man at twenty-three is just at the moment of life when one year's training in the schools will be worth what two years at some earlier period would have been. And our first advice is that you go to some good school like the Michigan Agricultural College, for instance, and there study and practice those things that will give you the wide knowledge, the practical skill, the limitless power, that come with thorough training in some one particular calling. Let the hardship be great, the sacrifices many, the way beset by difficulties—no matter. Twenty-three and in good health and spirits! It is a condition of fairest promise; and you should overcome every obstacle and win a splendid success.

But to answer specifically the questions you ask. It is unquestionably true that one may look long and far before he will find another such a way to establish himself in a home and in business as that afforded by strawberry production. And as you are now in Michigan, and in the northern part, we would call your attention particularly to the opportunity for growing late strawberries for market in all sections of the Lake Superior region, which includes, of course, the northern end of Michigan's lower peninsula. Here is a clipping from a Calumet, Mich., newspaper of date July 18, 1906:

The Lake Superior strawberry farm of Nehmer & Sons near Ontonagon is an example of the opportunities for farming in the upper peninsula. One hundred and fifty persons are employed there now picking berries and from 200 to 400 crates are picked and shipped daily.

Imagine what prices were paid for strawberries in the markets from July 10 to 25! It is an opportunity of a lifetime.

In the August issue of The Strawberry you will find an answer to some of your inquiries. (See page 166, "Seeking a Location.") Having determined where you will locate, look about for a good piece of land of say ten acres in extent, and arrange for its purchase. If you can't buy it because of lack of means or credit, lease it with privilege of purchase at a stipulated price within a certain number of years. But don't set out ten acres of strawberries until you are sure of your ground—sure that you understand how to grow big red berries and how to sell them; sure that your market is just what you need for such a field. Meantime, diversify your products by growing potatoes and vegetables, at the same time getting your land in perfect condition for strawberry production so you may extend the area given over to the crop as you wish—for nothing is better than vegetables and potatoes in fitting the soil for strawberries. Go in with intelligence, vim and enthusiasm, follow closely the instructions given in this magazine, and success surely will be your portion; and you soon will be in a home of your own—one of life's best achievements.

Growing and Selling Strawberries

By Ralph Roberts

THE first year of my berry growing is now history. I had about one-tenth of an acre in berries—some seven hundred original plants. From this patch we, my wife and I, sold $35 worth of berries. Besides we and our visiting friends had all the berries we could eat for a period of time extending over two months. We gave away many berries, even as many as a crate at a time. Besides this was the worst season for berries that has ever been known. The first month of the berry season was one continual rain-storm. Consequently crates of berries spoiled in the patch.

Here is what the local paper says about our patch—hope the praise is merited, for we tried to deserve it:

Mr. Ralph Robert's "Fancy Strawberries" are eye openers to every one who sees them. The berries he is now putting on the market at Bushby's store are exceptionally large and of fine flavor, and would attract marked attention in any market.

We did some advertising, although the berries themselves were their own best advertisement. Here is one way we did it, using the home paper as our medium:

Father—"Johnny, what is a miser?"

Johnny—"A miser is a man who can pass Bushby's store and not buy some of Roberts' Fancy Strawberries."

I will relate a little experience, showing what quality stands for even in the local market. One merchant 'phoned up to the house for berries and I asked him the price. He replied: "Ten cents a box."

When I got to the store he had some other berries on sale. I took mine from the wagon and placed them on the stand in such a way that they would show to good advantage. Just then the merchant came up and when he saw them he stared. "How much do you want for them?"

"The market price."

After reflecting a moment the merchant said: "If I sell your berries for 10 cents a box, the same as these others, the others will spoil on my hands." So he sold mine at two for 25 cents and then they sold out before "the others." As he got a commission I thought in that instance, at least, it paid to raise "Fancy Berries." I could not supply one quarter the demand for my berries.

I enjoy The Strawberry very much and think a strawberry patch without The Strawberry would be like Thanksgiving without turkey.

Everson, Wash., July 12, 1906.

HOME OF C. W. GORDON
A Montville, N. J., Reader of The Strawberry

Mrs. Hooper of the Strawberry Patch

By Mabelle S. Hooper

LET us leave Mrs. Wiggs and her cabbage patch and read about Mrs. Hooper and her strawberry patch, and a very profitable patch it has proved to be. My husband is a carpenter, and is away from home all day. and as we both enjoy out-door work, we decided to see what success we could make of a strawberry bed, as we had good long evenings in which to take care of the bed, and I thought I could surely pick all the berries we should have.

So we sent for a famous strawberry catalog and after much deliberation chose the three varieties known as Kansas, Parsons' Beauty and Splendid. Our plants arrived in due season and my husband set them out as directed, and very soon they began to grow great handsome plants.

My husband bought a wheel hoe as soon as the weeds began to appear, and armed with this and a rake we would

march to our strawberry bed as soon as our supper was over. Then the weeds had to catch it. We had set the plants in rows 100 feet long and had sixteen rows. It would take us three evenings to clean the bed. My husband with the hoe would loosen the weeds and I racked them up. We did not let one escape us. But they were as persistent as we were, and in less than a week we had it all to do over again. We kept at it, however, until late in the fall, when we covered the plants with straw for their winter's rest.

Spring came, and we were ready and waiting. In due time the covering was removed and soon came the blossoms. Blossoms, blossoms, everywhere. If only I had taken a photograph of it!

How anxiously we watched for the first ripe berry. It came, and was soon followed by others. And then we had to get busy. June 15 we picked one box which went to our own table. Next day six boxes, which we sold for 20 cents a box. They now came thick and fast and we found a ready market for every berry. From this on we got from one to two hundred boxes a day until at last they were all gone.

I had kept strict account of every box, and how much it sold for. From June 15 to July 12 we picked from this bed 863 boxes of great luscious berries. For these we have received $83.20. We do not know whether this is doing exceptionally well or not. At any rate, we are extremely proud of our summer's work.

Certainly no more heathful work can be found, as our looks will testify; and we would not exchange the enjoyment we got from our strawberries, both in the field and at the table, for a great deal.

We are full of enthusiasm for next year, and plan to do even better.

Danvers, Mass.

The Best Fertilizer

WHAT is the best fertilizer? Is a question that comes to The Strawberry with frequent iteration, and we are glad to quote Prof. J. L. Stone, of Cornell University, on that point. He says:

"It is not possible to state that a fertilizer of a proper kind is certain of producing best results with any particular crop or on any particular soil. This definite information can only be secured by experimentation with the particular crop on the praticular soil.

"Certain broad principles, however, may be applied when the character of the crop and the nature of the soil with its recent treatment are known. For instance, a soil that has recently had a good clover sod turned under is quite likely to be well supplied with nitrogen, and a smaller amount of this ingredient need be applied in the fertilizer.

"For general crop purposes, a fertilizer containing about 3 per cent nitrogen, 8 per cent phosphoric acid and 7 per cent potash would ordinarily be useful, and this is about the grade of fertilizer that can be made by the purchase of nitrogen in the form of nitrate of soda and dried blood, phosphoric acid in dissolved rock, and potash in muriate of potash. A very good formula to follow in mixing these goods is to use 1,200 pounds dissolved rock, 200 pounds nitrate of soda, 300 pounds dried blood and 300 pounds muriate of potash for one ton of the mixture."

Moving Pictures of Plant Growth

THE scientists in the Department of Agriculture are preparing to match in a practical way, by a new application of "moving-picture" photographic apparatus, the miracle of the Hindu fakir who plants a seed, and causes the tree, which springs from it, to grow and come to maturity before the eyes of spectators, says World's Work. Professor Willett M. Hays, Assistant Secretary of Agriculture, is preparing a series of unique stereopticon views with the idea that, in the near future, an "education train" shall be sent out to tour the country to tell by "moving pictures" and lectures what the government is doing for the farmers.

To the human eye, plants are motionless. Their life processess are so gradual that we observe the results, but not the action. Yet this action, this growth, can be reproduced by "moving pictures." If a succession of pictures of a quick-growing plant be taken at intervals—say, of one every hour—and are then run through a machine which throws them upon a screen at the rapid rate of sixteen or more to the second, the plant photographed seems to be growing before one's eyes.

In two or three minutes the machine will throw on the screen the life history of a plant which may require many weeks to mature. A cow-pea, for example is one of the most rapid growers of our latitude. Yet, after a pea is planted in a pot of earth, several days elapse before there is any sign of life. This interval is represented in the moving-picture exhibition by several seconds. Then the first double-leaved shoot presses out of the ground. Two or three more days pass before these two leaves have shaken off their protecting envelope, and spread out. In the moving picture, a couple of seconds suffice to bring them to their full development. Then a third leaf is seen taking form between the other two. This spreads and grows before the eyes of the astonished spectator, followed by a fourth, a fifth, a stalk, increasing in girth and height, branches, more leaves and flowers. These are seen to fall and in their places the tiny seed pods take shape and grow. These ripen and are picked; the plant dries up and dies. It has all happened—all the changes of a season—in three minutes.

Considerable ingenuity is required to get the pictures to show this process. The plant whose picture is taken must be in a green house, where it will not be subject to the disturbances of wind or other causes. An arc-light burns day and night to furnish light for the exposures. Finally, the moving-picture apparatus is connected with the mechanism of a clock in such manner that a new picture is taken every hour. Thus twenty-four pictures record the history of a day's growth

There is a general demand in all farming communities for more information about plant breeding. Accordingly, Professor Hays has had the moving-picture camera turned upon the work at the Minnesota Experiment Station, where his assistants are carrying on the work he inaugurated in breeding new varieties of wheat and flax. The views show the

STRAWBERRY FIELD OF C. W. GORDON AT MONTVILLE, NEW JERSEY

men dropping seed in the little checkerboard test plots; the test plots in bearing; the process of reaping the test plots; the the special miniature threshing machine at work; the process of emasculating the blossoms of the wheat; the men in the act of fertilizing one flower with the pollen of another variety; the method of tying and labelling; and, finally, the results obtained. These views will, with others, be used to illustrate the lectures delivered from the "education train."

The Saving that Wasteth

By Walter E. Andrews

ONE day last spring I called upon a neighbor and found him hard at work digging strawberry plants from an old patch on his farm.

"Back-aching work, isn't it?" I remarked casually.

"Yes," said he, "but this bed has fruited for three seasons and I guess it's about done for. So I'm going to start another patch and see if I don't have better luck. Somehow I never seem to do well with strawberries—never could account for it nohow! Neighbors all around me are making money, but mighty little of it comes my way. Queer thing, that. This soil is good enough and the plants grow pretty well, but they seem to lack fruiting qualities."

Of course, right there I made a few remarks. He listened politely, but I fear the suggestions I offered were as unfruitful as his strawberry plants.

"Oh, yes," he continued, when I had finished my little talk, "I've heard tell of plant breeding and all those new-fangled theories, but I never put much stock in 'em; can't afford to; do you suppose I'm going to send away and pay three or four dollars a thousand for 'fancy' plants when I can get plants for nothing right here on my own farm?"

And that apparently settled the matter. I felt that no amount of argument could outweigh that fact in his mind. To his thinking, immediate saving was the most essential thing in the universe. However, I said what I could—partly from a sense of duty, partly because there was a likeable something in my neighbor's blunt frankness. I explained patiently and calmly, I hope, that like begets like or a little worse; that plants taken from an old bed never could have the fruiting vigor of plants from a new bed which had never borne fruit; that a farmer might as well plant little potatoes every year as to set new strawberry beds, with off-shoots from old, worn-out plants; that—

"You said part of that before," he interrupted, not unkindly. Indeed, I detected a half-humorous, half-obstinate twinkle in his eyes as he continued. "Little potatoes, you say?" "I always plant 'em myself. Can't sell 'em you know. What else you going to do with 'em?"

"But the—the—" I stammered.

"Never mind any 'buts'" said he. "The point is: How's a poor man going to make a living unless he sells everything he can, saves every penny possible and plants all the odds and ends? No, no neighbor? Theories are all right for some folks, but I've got to scratch lively to keep out of the poor house—Darn that mortgage on my farm, anyhow! I never did have any luck with berries or I might have paid it off long ago!"

Well, I gave it up and went thoughtfully home.

How strange it is that the saving of a few dollars on plants or potatoes blinds so many men to the higher economy and profit which comes from wise spending. They probably will always be poor; their mortgages in all likelihood never will be paid; no doubt they will continue to plant little potatoes and run-out plants until somebody smarter than myself succeeds in convincing them of their error

"A Kalamazoo Direct to You"

"Kalamazoos" are fuel savers.—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality—
They are easily operated and quickly set up and made ready for business—
Buy from the actual manufacturer—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

Radiant Base Burner High Grade Parlor Heater for Hard Coal

Oak Stove Heater For all kinds of fuel

We Pay the Freight

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo at any price.

We want to show you **how** and **why** you save from 20% to 40% in buying direct from our factory.

If you think $5, or $10, or $40 worth saving

All Kalamazoo cook stoves and ranges are fitted with patent oven Thermometer which makes baking and roasting easy.

All Kalamazoo stoves and ranges are guaranteed under a binding, legal and thoroughly responsible $20,000 bond to be exactly as represented.

All stoves blacked, polished and ready for immediate use when you receive them.

You won't need the help of an expert to set them up in your home.

Royal Steel Range For all kinds of fuel.

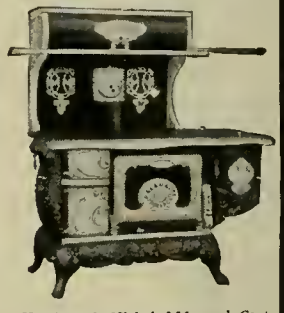
SEND POSTAL FOR CATALOGUE NO. 348

Examine our complete line of stoves and ranges for all kinds of fuel; note the high quality; compare our prices with others and then decide to buy from actual manufacturers and save all middlemen's profits.

Catalog shows 207 styles and sizes for all kinds of fuel. Write now.

Sold on 30 Days Approval Test.

Kalamazoo Stove Co.
Manufacturers,
Kalamazoo, Mich.



Handsomely Nickeled Monarch Cast Iron Range. For all kinds of fuel.

I FIND most all of my difficulties explained and remedies for them given in The Strawberry.

MISS ANN E. HINSDALE.

Princeton, Ill., Aug. 8, 1906.

How I Renew The Old Bed

By C. H. Krueger

I HAVE read with much interest of many different ways of renewing old strawberry beds, but still think my way the best, which of course is natural.

My plan is to use an elevator potato digger. This machine leaves the ground in as fine shape as it can be made, provided there is no grass sod. The soil should be reasonably dry to do its best. After mowing and burning, hitch a good team to the potato digger, dig up all plants, leaving a narrow strip four to six inches wide, being careful to drive straight. If the soil is dry, the digger will shake all plants and weed roots out of the soil, leaving them on the surface.

After drying a day or two rake with sulky rake, haul the rubbish off, and then with a sharp hoe cut all surplus plants out of the strips.

Fertilizer may be applied at this time and cultivation begun. The result should be satisfactory.

Holland, Ohio.

CLEANING OUT THE FENCE CORNERS ON A LARGE STRAWBERRY FARM

Suggestions for September Work With Strawberries

SEPTEMBER is the month in which the strawberry plant makes runners most profusely, and the grower must not lose sight of the fact that not only is the mother plant strong and vigorous and therefore the better prepared for this work than at any other time, but it also is true that the young plant that this mother has produced is at this time well-established in the soil and during the month will produce runners nearly as rapidly as the mother herself. So we urge all growers to keep their best eye on the bed from now on till mulching time with a view to preventing too many runner plants from taking root. This is what we term restriction. No runner should be permitted to take root after your ideal row is formed. By removing all of the surplus runners the plants which remain to produce the 1907 crop is greatly strengthened and its power to produce big crops of berries immeasurably increased.

Restricting Runners

A PLANT cannot build up a heavy fruit-bud system while a large number of runners draw their sustenance from it. So many letters come to us from readers after it is too late saying, "My plants have got the best of me," that we urge the importance of this matter. Some write that the plants are as thick as grass and want to know what to do to cure the evil. That is a hard question to answer, for this a case wherein prevention is infinitely better than cure, and if all will follow the instructions above given, it will never be necessary to call upon outsiders for aid. If through sickness or absence you may not do this work yourself, hire it done; for the importance of its being done just at the right time may not be overestimated.

Keep Control of the Field

THE long and severe drought that occurred during the period just following the setting of plants this season caused some of the plants of many growers to fail to take root. The vacancies thus created may be better filled in during September than at any other season. By selecting a day after a rain the soil will be full of moisture, and it will be easy to take the plant up with a large amount of soil adhering to the roots. Take a wheelbarrow and go down the row, taking up the strongest plants from places you may best spare them and reset them where most needed. We often have done this, and observed no check in the plant's growth whatever. The plant will feed from the adhering soil until its roots are thoroughly established in its new quarters. Although these reset plants will not yield so many berries as will the others, the work thus done will preserve the symmetrical beauty of the bed and also will put the patch in fine shape for the second crop.

Filling In the Vacancies

WITH the coming of fall the tendency of the plant is to send a large number of feeding roots up near the surface, therefore it is best to cultivate very shallow so as not to disturb these feeders which play so important a part in sustaining the plant during the process of fruit-bud development. The grower should take care also that he does not go too deeply with the hoe. Merely cut under the surface sufficiently to break the crust. Of course, if your soil is very hard and compact, it will be all right to go more deeply in the center of the space between the rows. For this work we use a five-tooth cultivator, having the shovels quite sharp and pointed, drawing them close together so that the outside shovels will not come nearer than one foot to the plant. This tearing up of the soil will make it possible for it to absorb a large quantity of water supplied by the fall rains. It also mixes the vegetable matter and fertilizers with the soil so that the bacterial germs may work it up for the plant's use.

Fall Cultivation

THIS is the time when all fence corners and other nesting places of insect pests should be thoroughly renovated. This work is just as important as any other feature connected with the production of strawberries, and if every grower will but see to it that his fence corners, creeks and all other places where obnoxious growths are sure to be found, are thoroughly cleaned he will greatly reduce the danger of insects and their destructive habits. First mow off the weeds and grass and, where it is possible, burn everything over when dry. If along a fence, take a time when the wind is blowing away from it and then it will be safe to set fire to the stuff. And even if the fence gets a little scorching it will not do so much harm as would the insects that breed and hibernate there. Just note, and you will see that the first attack of insects is made on the rows nearest a fence or creek or some other spot where obnoxious growths have been allowed to remain. And only a short time will be required for them to work their way to the remotest portion of the field. And even though you never have seen an insect on your farm, it will pay you big to keep every fence corner, driveway or other spot on the place perfectly clean.

Insurance Against Insects

WE do not believe there is any other crop that repays the cost of extra care more handsomely than does the strawberry, and preparing the soil in advance is an important feature of successful strawberry production. To those who have a piece of ground accessible at this time, we suggest that it be broken up and thoroughly prepared by several harrowings until every clod is made fine and the soil is like a garden bed. Then the latter part of September, or even the first of October, sow rye at the rate of five pecks to the acre. This rye will become large enough to be a great protection to the soil during the winter months. During the winter when the ground is frozen, scatter manure thinly and evenly over the rye. The rye will take up the leachings of the manure that have been extracted by the winter rains and snows and hold it in reserve for the strawberry plants the following spring. Just as early as possible in the spring this rye should be turned completely under, when you will have as well prepared a bed for strawberry plants as one could wish for. For those of our friends who raise chickens let us say that the rye will be an excellent place for the fowls to get

Preparing Ground for 1907

THE WAY TO PREVENT FUNGOUS DISEASES AND INSECT PESTS

their "greens" during the winter months. If you have the manure, and the time in which to do the work, it will be all the better if you will spread the manure and work it thoroughly into the soil before sowing the rye.

Arranging for Mulching

IN many localities mulching materials are not always easily obtainable, and just now when the farmers are threshing their grain is an opportune moment to engage straw for the winter covering for the plants. A great many farmers will be very glad to dispose of their old stack of straw, now that the new crop of straw is in hand; and the old is much better for mulching strawberries than the new straw, as it lies better on the plants and is not so easily blown away. It always is best to engage this in advance and then you will be sure to have it on hand when mulching time comes. As to preference, we would choose old wheat straw, but we often find it so scarce as to be glad enough to accept almost anything as a substitute. In some localities it is impossible to get any kind of straw, and where this is true we suggest that you make a special effort to secure the coarse manure from livery and private stables, remembering that anything is better than no mulching at all.

SOIL CULTURE—some form of agriculture—is the elect calling of the future, and the boy who leaves the farm in these days, unless he have peculiar aptitude for some other line of work, is throwing away a great opportunity. As H. J. Waters, dean of the Missouri Agricultural College well says: "The experience a young man gains on the farm is a most valuable asset. He should not throw it away by entering some other profession in which this experience is of no special value. This is particularly true when we consider the extent to which most of the professions are crowded and the unusual opportunities now offered in agriculture. Every farm boy should supplement his farm experience by training in a college of agriculture, so as to be prepared for the greatest possible success."

All in Good Management

I ONCE asked a farm hand how his employer succeeded in doing so well when he only worked ten hours a day, writes Fred Grundy in Farm and Fireside. "It's all in the management!" said he. "If I had sense enough to manage as well as he does I would be the owner of a farm now instead of working by the month. I think he is the best manager I ever saw. The work goes on as steady as a clock on his place. There seems to be no rush at any time, but I know I am doing better work and more of if on this farm than I ever did in my life. He has every implement fixed to do the best work it will do, and I can tell you it is a great satisfaction to work with them. Then he is the best stock feeder I know. He feeds the horses just enough to keep them even. They are not fat as butter in winter and poor as crows in summer. When at work they have full feed, and when they stop, the feed is cut down at once. He seems to have more sense about these things than anybody I ever met. The fact is, he is a real cracking good farmer."

This fact is getting plainer every day: that it is not brawn but brain—active brain—that makes the most successful farmer of today. And we should keep in mind the fact that active brains are not found in an overworked body.

Look for Sunbeams

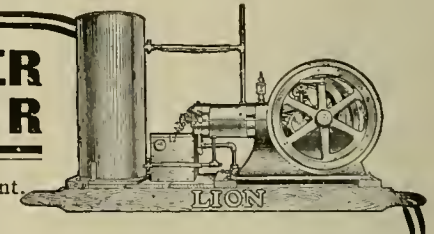
Ida Gregory

IF we look for sunbeams
We can find them everywhere:
Nestled midst the silken tresses
Of an infant's sunny hair.

Sunbeams resting in the fondness
Of a mother's patient smile,
Gaily romping in the glances
Of each happy little child.

There are just as many sunbeams
All around us, brightly fair,
As shadows, and if we look
We can find them ev'rywhere.

A READY POWER AT ANY HOUR



That's the kind of a power you want. You do not have to wait for steam, or until the wind blows, before you can pump water, grind feed, saw wood or the hundred and one other jobs about the farm, if you have a **Lion** Gas or Gasoline Engine. Have you ever thought just what a saving of time, labor and money it would be to have such a practical power **always ready to operate** your various machines on the farm, in the shop, printing-office, or—**anywhere?**

The LION Engine

is such a power. It is **simple** in construction, **practical** in operation, and **economical** in the use of fuel. You do not require the services of an engineer, as anyone can operate it. We send the **Lion** engine

Direct From The Factory

on a **ten days test trial** and give explicit instructions and directions for setting up and operating it. Write now, stating your power needs, for our easy payment plan. Remember, we send **the engine,** not the agent.

LYONS ENGINE CO., • • Lyons, Mich.

How One Amateur Finds Joy in His Patch

By Robert Allen

Illustrations From Photographs Taken By the Author

VIEW NO. 1 SHOWING NEWLY SET BED

ABOUT ten years ago my father had a big bed of selected strawberry plants. It was my pleasure to get up in the morning at four o'clock and work till eleven a. m. hoeing, taking half an hour for breakfast. I had the idea the ground should be cultivated as soon as possible after a rain, waiting just long enough to get somewhat dry on top, but not letting the hoeing go a week or so, looking for another rain.

I pinched off all the blossoms. (My father wanted some to grow, so he could see what they were like.) The runners were just getting started and I was wondering how many to let set in the row, when my father told me there was no use doing anything further; that I had killed all the plants. His continual talk along that line discouraged me and I did no more work on that bed afterward.

In August of that year father hired an old man to go through the patch with a spade and garden line to mark out the rows. It looked as if I had killed everything, did it not?

Now I have a little place of my own and though it is rather a damper to have your wife ask you if you expect the plants to come up through that dirt (after mowing and covering) still I try not to mind it, but just go ahead, following The Strawberry way as nearly as I can arrive at it. In the spring of 1905 I had a man plow my plot for strawberry plants. After he was done, just for the curiosity of it, I examined to see how many inches of loose soil I had. It was so very little that I went over the whole with a spading fork, going the full depth. The plants did finely, many having eight crowns. I kept all blossoms and runners off. My soil was not so rich as I had thought, so the plants did not do so well as they might.

Last fall I spaded up another plot, covering it afterwards with good manure. This I spaded in the spring, setting the plants sixteen inches apart, letting each plant produce another, then keeping off all runners. I wish now I had set even more plants, so they would have had longer time to grow and build up crowns, instead of depending upon half new plants to fill the beds.

I dipped the roots in tobacco-stem tea before setting, so am not bothered with ants this year. But the currant worm was in evidence, eating holes in the leaves. I fixed them with hellebore. I find now the leaf roller. I sprayed once with Paris green, but must give them another dose.

I use a pointed hoe and now cultivate lightly near the plants going deeper between the rows. I believe that last year I injured the roots at times, though the plants did well and were never watered, except as it rained.

I mowed last year's plants off June 26, and now the remaining plants are nice and green, most of them with good foliage, apparently starting crowns nicely, but why is it that they are so slow in starting runners? Only one plant (Texas) seems to be attending to business. It has half a dozen or so fine runners. In fruiting time all the plants were sending out runners without end. My plants stand up about a foot high and look as big as most plants do in the fall or spring.

VIEW NO. 3 SHOWING MOWED-OFF PLANTS
With the youngest member of the family taking a hand

I am sending you three views of my strawberry bed, taken by myself. It was set out in 1905 and 1906.

I set four varieties last year, two rows each, in hills two feet apart each way. View No. 1 was taken in June, 1905. They were Texas, Wolverton, Midnight and Arizona. View No. 2 was taken the first week in June, 1906. It shows the old bed in hills, with the cornstalk mulching, the newly set plants farther over. I set these in April of this year.

View No. 3 shows two rows of last year's plants mowed off and dirt thrown over the crowns. They have not sent out runners yet (except one plant) but the crowns are beginning to show up well.

My calculation was that each plant should produce one more plant, forming a single-hedge row. But some died out from the very dry weather. I am preparing to fill the gaps by starting plants in berry boxes. These I imbed near the mother plant and leave till the new plant is well developed. It is then no trouble at all to transplant it to any place I wish, even in dry weather. I wet the earth in the box a few hours ahead, then break away the box and set the chunk in a hole

VIEW NO. 2 SHOWING OLD BED IN HILLS WITH CORNSTALK MULCHING

prepared for it. The roots have often filled the box completely. I used this method last year and every plant grew. Not one plant winter killed.

I count the strawberry bed a success, even if we did lose many berries by having the hills too far apart. I succeeded in doing what I had undertaken to do—kept the plants restricted to the original hills. I took great delight in seeing the plants stool up—just as a woman delights in her geranium bed.

This is our experimental patch. We may go into the business on a larger scale some day, but I hope we shall never be tempted to put out so large a field that we cannot take care of it properly.

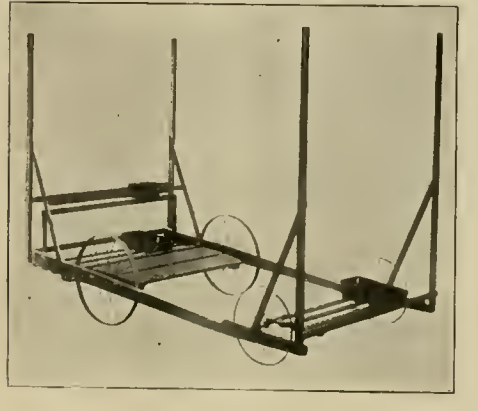
Odell, Ill., Aug. 1, 1906.

The Picker's Chariot

WE present herewith a unique invention made by George Webster of Christiana, Pa., and which he has named a chariot. Certainly there is something royal in the notion that a strawberry picker may ride through the fields and gather the crop sitting in luxurious ease and shaded by the canopy of his chariot from the sweltering rays of the sun. Mr. Webster writes that his only objection to strawberry growing was the picking part—he couldn't get along well with so much stooping over. As a German employe on The Strawberry farms remarked: "Ich overstoops so much dot I cand't oopbend." This appeared to be Mr. Webster's trouble, and as necessity is the mother of invention, this chariot is the outcome of this difficulty.

The engraving shows the chariot to be a bottomless four-wheeled cart, with seat for picker and a shelf for boxes. The picker loads up the shelf with boxes, takes his seat and by turning the wheels with his hands moves down over the rows, gathering the big ripe berries with both hands—for he doesn't have to carry a box in one hand. It will be observed that the sun is shining down on that canopy good and strong, yet Mr. Webster appears to be enjoying his hatlessness notwithstanding the lack of protection at the

WEBSTER'S CHARIOT FOR PICKERS



MR. WEBSTER PICKING STRAWBERRIES FROM HIS CHARIOT UNDER A JULY SUN

place "where the hair ought to grow." He writes us that he is compelled to admit his baldness, but doesn't want readers to think the darkness of face indicates a black friend and brother; it is so only because he sits in so deep a shadow. By the way, Mr. Webster was celebrating Independence Day in his chariot when this photograph was taken, typifying, as it were, his release from back-breaking toil and the establishing of a new order of things in the land of the strawberry.

The chariot as shown carries thirty-two boxes, weighs thirty-five pounds, may be lifted and carried with ease from row to row, and, as Mr. Webster points out, does away with the moving of boxes, the trampling of the vines and the crushing and loss of many strawberries. The vines come up through the frame of the chariot and really are in the lap of the picker, standing upright, so that the picker may readily strip them of their fruit, placing it in the boxes which, as fast as filled are placed upon the shelves, out of the direct rays of the sun. "I pick them in the shade, carry or haul them in the shade and do not get off the seat until the end of the row is reached," writes Mr. Webster. Comfort for the picker, safety to vines and fruit, and economy in all ways, is the strong claim made by Mr. Webster for his chariot.

NOW that denatured alcohol may be manufactured by everybody without having to pay an internal revenue tax which up to this time has been prohibitive, we hope to see our friends in the rural districts take advantage of the opportunity and use up all the wastes of berry patch, orchard and farm in manufacturing a commodity that ought to stand for a very large economy. No individual may undertake this work, depending upon the waste of his own farm to supply the raw material. It will require quite an expensive plant to distil the alcohol, and no one person in the community will care to undertake it. But at this point cooperation may be employed and the alcohol made at little cost that shall heat and light the houses of the farmers, run his engine, and in many ways serve as an important feature in farm economy. Denatured alcohol, as all know, is a non-drinkable, poisonous alcohol, and useful only in the arts. By all means cooperate and make the most of this great opportunity.

Pointers for the Procrastinator

THE easiest way of starting a plantation of strawberries in the home garden is to set young plants in early spring, the earlier the better. Of course, the ground must be rich and well prepared. A new bed invariably does better than an old one, no matter how we treat it, for the strain of bearing a heavy crop of berries is a severe one and must necessarily weaken the old plants, says a writer in Farm and Fireside. For that reason also I would prefer to take plants for setting from a young bed that is just ready for bearing its first crop. But when one has been neglectful and failed to make a new plantation for home use, as I did this year, then we must do the next best thing.

This I find to be the plan of taking up nice and thrifty plants in big chunks from the old bed after the picking season is just over, preferably in a wet season or shortly after a heavy rain, and set these chunks in trenches dug deep enough so that the plants stand on the level, the rows being of the customary (four feet) width, and the chunks set five or six feet apart in the rows. The chunks are carried from the old to the new patch preferably on a stone or mud boat, or on the

wheelbarrow, never on the wagon, so as to avoid shaking them about and loosening the dirt from the roots. On a wheelbarrow we can usually carry only about eight of these large chunks of earth to a load, and possibly not over fifty on a stone-boat. Consequently the job of making a new plantation in this manner is necessarily slow. But if it is done in a wet time, the plants hardly know they have been moved, and when carefully handled and planted, will throw out new runners abundantly, and make closely matted rows by fall, and a good crop of fine berries the following season. The plan will answer when we cannot do any better.

If we have neither planted in the spring, nor have a chance to make a new bed by the "chunk method," then there is the third choice, to be found in setting so-called "potted plants." It is possible to raise at least a partial crop on fall-set potted plants the following berry season. Here at the North I have been unable to grow even a fairly good yield on such plants, no matter how carefully they had been potted off and transplanted. But even a small crop is better than no berries at all. Whether it be done in spring, summer or fall, the strawberry patch must be planted. We can't do without it.

Women and Strawberry Culture

I would like you to send me some advice and facts on strawberry growing. I read this week in a woman's journal that a delicate woman or girl could take care of an acre of strawberries by hiring help at picking time, and that a moderate profit above all expenses on the acre would be $500. Now I do not see how this can be and I want your advice. I am a woman, a school teacher, and not very strong. I want to plant an acre of strawberries on good ground sloping to the south, and would like to know how much of the work pertaining to it I might be likely to be able to do. The plowing of the ground in the fall, the manuring in the fall, the second plowing in the spring, the planting, the subsequent plowing and mulching would have to be hired done by a man. Then suppose I managed well in attending to other matters: can you give me any estimate of what I might clear financially on a moderate crop from one acre? I would be willing to undertake it on a smallprofit, but I do not want to undertake anything that I could not get back all money invested and a little extra for my efforts. I've never done any business except in a very small way, but I always clear myself and quite a bit more.

Roodhouse, Ill. E. P.

WHAT may be accomplished by a woman in your situation is past estimating. Some of the very finest successes in horticulture have been made under just such conditions as you purpose to create, and even in animal husbandry women have achieved notable successes. So don't be influenced at all by the fact that you are a woman.

The native chivalry of man, where the individual is worthy of that appellation, makes him all the more careful to do his work well where it is done for a woman having the pluck and courage to work out her own destiny. So don't be influenced by the fact that you are to depend for the heavy work upon masculine help.

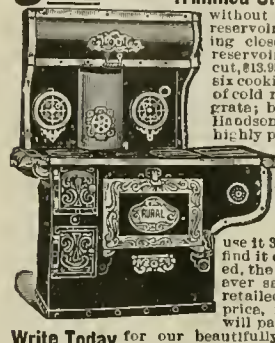
The opportunity in the strawberry field is excelled by none and equalled by few occupations, whether considered as to its adaptability to the feminine mind and physical powers or from the viewpoint of possible success and profits. Many of the most successful of The Strawberry family are women, and more enthusiasm and spirit will not be found among the masculine members. So rest in confidence upon the wisdom of your choice of enterprises.

And the things which you, even though not a strong woman, could do in behalf of your plants would be beyond calculation, and the success of your veuture might greatly depend upon the work done by yourself in the field. Strawberries are very appreciative of extra care and repay it in the most astonishing way, and it is just the little extra touches which one in your situation might give them—the vigilant oversight of one whose time is wholly given up to them, that make for large results at picking time.

Now as to that estimate made by the writer in that woman's journal. We deprecate statements of that kind because they are quite apt to arouse hopes and expectations that may not be realized, and so be followed by disappointment and discouragement. Whether one may secure $500 or $400 or $300 from an acre of strawberries depends upon many things—soil, weather, markets, plants and how they are set out and cared for; the intelligence of the grower, her devotion to her work and the degree of "gumption" put into daily practice. But $500 and even $700 have been taken from an acre of strawberries, and each year the opportunity to secure large returns increases because of the growing demand for the fruit. So we say, in conclusion, if you will follow the instructions as given in The Strawberry, adjusting them intelligently to the particular conditions under which you may be situated; set out none but the best plants, give them only the best of care; use the best of judgment in marketing, and seeing to it that the fruit is packed well, with scrupulous care insisting that the bottom of the box shall be as fine as the top—do these things, and we are confident you will in this instance, as you say you have done in others, "clear yourself and quite a bit more"

COMPLAINTS of the injury being done by the grub come to us from strawberry folk all the country over. There is only one remedy for this pest,

9.95 Buys This Large Handsome Nickel Trimmed Steel Range



without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, $13.95; large, square oven, six cooking holes, body made of cold rolled steel. Duplex grate; burns wood or coal. Handsome nickel trimmings, highly polished.

OUR TERMS are the most liberal ever made. You can pay after you receive the range. You can take it into your home, use it 30 days. If you don't find it exactly as represented, the biggest bargain you ever saw, equal to stoves retailed for double our price, return it to us. We will pay freight both ways.

Write Today for our beautifully illustrated **Stove Catalogue No. 1123**, a postal card will do. 75 styles to select from. Don't buy until you get it.

MARVIN SMITH CO., CHICAGO, ILL.

Strawberries

Are one of the most profitable crops and it pays to set plants in the fall. We furnish Klondyke, Lady Thompson and other leading varieties at $1.75 per 1000 and upwards. Ask for our special price list stating number of plants desired.

Iowa Seed Co. Des Moines, Ia.

Make More Money on Fruit Crops

Everyone who grows fruit, whether a large commercial grower, or one who has only a few fruit trees, a berry patch or a garden, should be interested in knowing how to get the most profit from his crops.

THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

is the only magazine in America which is devoted exclusively to the interests of those who grow fruit. It is handsomely illustrated, and contains from 36 to 76 pages each month. It tells all about fruit of all kinds—and nothing but fruit—how to market, how to pack, cultivate, spray, prune, how to MAKE MORE MONEY from your crops. Sample copy will be sent free. Regular price is a dollar a year, and each subscriber is entitled to a choice of any one of our series of ten "Brother Jonathan" Fruit Books—the best in existence.

Three Months Free

We are so confident The Fruit-Grower will please you that we will send it to you three months absolutely free if you will mention paper in which you saw this advertisement. If, after three months, you like the paper, we will make you a special offer for twelve months more. If you don't like it, notify us and we will take your name off the list. The three months will cost you nothing. We offer Cash Prizes for new subscribers—write for particulars. Write your name and address in blanks below and mail to

Fruit-Grower Co., Box B, St. Joseph, Mo.

FRUIT-GROWER CO., St. Joseph, Mo.
I accept your FREE three month's trial offer. At end of three months I will either pay for a year's subscription or notify you to stop paper. In either event there is to be NO charge for the three month's trial.

Name_____

Route or P. O. Box Number_____

Town_____ State_____

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and **SPECIAL OFFER TO YOU.**

R. R. FISHER, Pub., Box 86, Freeport, Ill.

Please mention The Strawberry when writing

and that is to dig down to the roots of your plants, get the grub and kill him. But there is one preventive that is most effective—plow up the infected soil late in autumn, bringing the grubs to the surface, thus exposing them to freezing weather and the attacks of birds. Every grower should practice this method who can do so. And remember that clover-sod land is particularly the habitation of the grub. Never put strawberry plants in any sod land without first carefully inspecting the land. If signs of the grub are found—set out your plants somewhere else.

Overflow Question Box

A. R. B., Manitowoc, Wis. Should the runners that sprout from young plants be allowed to grow? And when should the runners be covered up?

The runners from the young plants are all right, but no more runners, either from the mother plant or from the runner plants, should be permitted to grow than will fill out your ideal row. That is, if it be single-hedge, let two runners form; if double-hedge, let four runners form. Of course, if there are vacancies in the rows you wish to fill, you may let one or two extra runners form to be transplanted later into these vacant places. You should place soil on the runner just back of the node or bud as soon as the latter forms. This will aid the development of the node into an independent plant, and also will help to relieve the mother plant of the strain of nourishing her offspring, thus enabling her to give more strength to the upbuilding of a fruit-producing organism possessed of strength and vigor.

O. R. L., a member of this school located in a Michigan city, the name of which for obvious reasons is omitted, wrote us several weeks ago as follows: "Some old growers of berries here are working against me; that is, they are getting all the fancy store trade of our town so as to shut me out. I am not the kind of fellow that is going to beg dealers to handle them; that is sure. I have made up my mind to cut prices if worst comes to worst. Please advise me what to do in a case of this kind—tell me what would be the best way to market them." We advised as follows, and give what was said for the benefit of others who may have a similar difficulty:

The best thing for you to do is to care for all of your berries as they are picked in the field, putting up the fancy select berries in boxes to themselves, then before taking the berries to market, arrange the top layer in each box attractively by placing the stem ends down. This will leave the glossiest part of the berry in full view of the customers which will make them hungry to get a taste of them. It is not a good plan to cut prices in order to get trade. It is best to whip the other fellow out by putting nicer fruit on the market than he can possibly grow. We admire your grit in not wanting to beg anybody for their trade. If the merchants do not want to handle your berries and treat you fairly in the matter, we would advise that you take them from house to house, showing them to the buyers of each family and convince them that your berries are honestly packed and fully ripened. It is also a good plan to leave your competitor alone. That is, never mention his name unless you are compelled to do so. It is always best to build up a trade on the merits of your goods, and if your competitors will try to injure your trade, they will be doing you good, and themselves harm. The old saying that "every knock is a boost" is true in a business way.

A. L. E., Birmingham, Ala. My soil is of only medium fertility and I want to know what mixture of fertilizer is best and how to apply for best results. Will sulfate of ammonia, guaranteed 25 per cent nitrogen, be economical at $64 per ton as compared with nitrate of soda, 16 per cent at $50 per ton, and will it give as good results?

2. Will plants require any mulching in winter in this (central Alabama) locality?

3. Can I use Alabama grown plants and set in the fall for a crop the following spring, or will it be better to get Northern grown plants in the spring and wait a year for a crop? If I wait until spring can I wait until May 15 and set Northern grown plants? If I may, I can raise an onion crop by that time; not lose a year for a money crop. In this locality the onion crop is made between January 1 and May 15 and the heavy fertilization and culture required for it leaves the ground in most excellent shape for any crop following.

It is rather hard to give advice on commercial fertilizers without first experimenting with them and on your own soil. Sulfate of ammonia will be good, if not better, than nitrate of soda.

2. It is not necessary to mulch the plants in Alabama for the purpose of protecting them against the freezing and thawing, but it is necessary to mulch them to keep the berries clean.

3. While we believe that Northern grown plants will do better than those grown in the South, yet we realize that it is a long way to ship them from here to your state. You might get some of the Southern grown, and then get some of the Northern grown plants and test them side by side, and whichever does the better will be the plants to use.

We hardly believe that it would be a success to grow a crop of onions and then set the ground immediately to plants, as it will then be too late for the plants to get proper growth before the hot, dry, summer sets in.

STRAWBERRY FIELD OF L. E. SWOGGER, CARLTON, PA.

IN a note to The Strawberry, Mr. Swogger says: "The size of my patch is 234 by 255 feet, and from it I picked and shipped this season 7,900 quarts. In addition to this the family picked and sold and ate a great many berries of which no account was kept. This was an extraordinary yield, as the season here was dry and hot when the berries were ripening. But the berries were fine, and sold at from 15 to 8 cents a quart." Good berries always get good prices

A Cracker-Jack Idea

YOU have the fresh popcorn and other necessary material, and I have the formula for making the most crisp, delicious and healthful Cracker-Jack on earth. Now, what I propose to do is to send you my formula with complete instructions for making **Potter's Famous Cracker-Jack** if you will send me 25 cents. Why pay a big price for a little bag of stale cracker-jack when you can learn how to make my famous brand at so small a cost? Send me 25c in silver or 2c stamps and I will forward my formula and full information by return mail. It will tell you how to make your own cracker-jack, and earn big money.

Clark Potter, The Cracker-Jack Man, Three Rivers, Mich.

We vouch for Mr. Potter.—KELLOGG PUBLISHING CO.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

IF you want strawberries from August to November, try "Pan-American" and "Autumn". Plants for sale by Samuel Cooper, Delevan, N. Y. Circulars Free.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

SEPTEMBER brings with it many interesting questions and much important work, and the Correspondence School is answering this month many inquiries that will exactly fit your case, we have no doubt. One subscriber who had not seen The Strawberry until August writes: "The Strawberry is received. I find in it just the information I need for this month." And this issue will take to him just what he will require for this month, and so on throughout the year.

Month by month the people who grow strawberries are coming to realize the unique character of this magazine—to comprehend that of all the varied industrial lines none other has a publication which so thoroughly covers the field of practical instruction as does The Strawberry, and they are taking a greater interest in adding to its usefulness by increasing its circulation. Writing from Asotin, Wash., one of our subscribers says: "The Strawberry comes regularly and is a welcome visitor. I read and re-read it and get a great deal of encouragement and information from its pages. Don't see how I could get along without it."

We wish to call attention to the fact that each month several persons are apt to ask the same questions, although the form of the question will differ somewhat. We therefore urge every reader to study questions and answers with care. If you fail to find answer to your particular question, read to see if that question is not answered in response to another's whose letter perhaps reached us earlier, or for some other reason was answered instead of yours.

And again we urge you to ask questions without stint, if they are practical ones. It may result in solving your own vexatious problems; and you may be sure that others are to be benefited in the same way. Let us make this the greatest school, as it is the most unique, in the world.

O. J., Dawson, Minn. Our soil is so level that some of the plants I put out last year died this spring on account of wet. I would like to get the best plan for draining a level piece of ground.

The best thing to do in a case of this kind is to run a tile ditch through the lower place of this soil, draining it into some creek or place where the surplus water can be easily carried away. But if all the land around you is level and the drainage cannot be done, you can either make an open ditch to drain it into from the tile, or, if this would be too expensive, you may make a slight ridge, setting the plants on this as they do in the South. This ridge is made something on the plan of a sweet potato ridge. Thousands of acres of strawberries are grown on ridges in this manner in Mississippi, and they grow very choice berries there.

J. T. K , Wahpeton, N. D. I set 1000 plants last spring and they are doing finely where they are on good soil. A part of my patch is where coal ashes were thrown and that part is no good. In another part the soil is all gumbo and is not doing very well. Perhaps you folks do not know what gumbo in the Red River valley is like. It resembles cold putty in the spring then along in the summer it gets like a Milwaukee brick that was burned next the arch. So you can hardly blame a plant for not doing well in it, but it will raise great crops of grain just the same.

We never advise anyone to use coal ashes, because there is no fertilizing value in them. However, they should improve your gumbo soil by preventing it from packing so firmly.

G. S. A., Malvern, Ark. Are sorghum stalks, after the juice has been extracted from them, a good mulch for strawberries?

One of the very best, and in your section, where large quantities of sorghum are grown, it should be a favorite with strawberry growers.

P. A. P., Jamestown, Pa. I set an acre to strawberries this season and have two more acres joining that I expect to set after I harvest my first crop, provided it is satisfactory. But I have been having a hard battle with the grub worm. Now the adjoining piece of land is in oats this season and seeded to Mammoth clover with a good catch, and I expect to plow under the second crop of clover in the fall of 1907, give it a good dressing of manure and set to strawberries in the spring of 1908. Will that do away with the grubs?

2. Put some manure on first piece direct from blacksmith shop that contained horses' hoof parings. Would that be likely to bring in the grubs?

Setting strawberry plants will not do away with the grubs or help you in any manner in your fight against the pests. You do not say whether the oat field is now infested with grubs, but it is commonly true that one of the most prolific breeding places for the grub is found in the clover field. We advise you to examine with great care this field before setting to plants in 1908, as the presence of grubs in your patch in such close proximity to the clover field indicates that grubs may be present over the entire area, including the present strawberry patch, and the two acres you intend setting out in 1908.

2. We know of no reason why the manure taken from a blacksmith shop should be any more liable to be infested with grubs than any other. It is true that in bringing manure on the farm, one always runs the risk of having grubs brought in with it.

S. B. H., Athens, Mich. Will it injure one-year-old strawberry plantations to pull the weeds and grass which may come through the mulch before the fruiting season and especially when in bloom?

2. Some growers claim that only the plant nearest the parent vine on each runner should be set to improve the berries or keep plantations from running out. Is there anything in this?

3. Will keeping all buds picked on such plants cause them to produce a superabundance of runners?

4. When should fall cultivation cease in well established beds? Would you advise a cover crop when fruiting rows are well established to check runners?

It will not injure your fruiting bed to pull the weeds that may come up through the mulching between the rows or in the rows, provided the work is done immediately after a rain and while there is plenty of moisture in the ground. It is always best to do this work before the plants come into bloom, but if it has been deferred until then, there will be no injury, provided you wait until it rains.

2. We never have found any difference in the runner plants whether they were the first plants next to the mother plants or the third or fourth, provided the mother plant is in good physical condition, and that it has been carefully selected during the previous years.

3. There is no doubt that it increases the runner production of a plant to pinch the buds from the spring-set plants, because this naturally relieves the plant of a great strain, and it starts at once to build up a large foliage. If the buds are not removed, the plants will be weakened so

they may not send out runner plants, and if the weather turns dry, it is quite likely to exhaust the plant entirely. The time to stop cultivation in the strawberry field will depend somewhat upon the season.

4. Ordinarily it is best to stop cultivation the latter part of September in this latitude. If cultivation be continued too late in the fall, it has a tendency to encourage a large foliage growth at the expense of fruit buds. Mulching the plants would not check the runners. It would prevent them from taking root, which would be all the more detrimental to the mother plants.

F. F. B., Belmont, N. Y. Can you tell me of anything that will keep cutworms and wire worms from destroying my strawberry plants? The cutworms destroy the plants, and the wire worms destroy the runners by boring into them, and they also attack the old plants. The cutworms attack the roots of the runners as soon as they set. I would now have a glorious patch but for the worms.

As the wire worm does most of injurious work under the surface of the ground, we hardly believe the damage done to your runners can be from this insect. We think it is the stalk borer. These insects bore into plants of different kinds and the plant soon wilts; upon examining them you will find that the plant has been cut off inside the stalk. The stalk borer is a brown worm about the size of a wire worm. It hatches from an egg laid by a brown moth. The moth appears late in the summer and the insect apparently hibernates in its adult condition. There is scarcely any remedy for this insect, but a good preventive is clean cultivation, as these insects develop in wayside woods and foul places.

Nor do we think it is the cut worm that is cutting the roots from your plants. It is more apt to be the white grub. The white grub is about one inch long and as large around as a lead pencil, having a brown head. It eats the roots off of the plant about one inch under the ground surface. Fall plowing before setting the plants is a good preventive. There is nothing that can be done after the grub attacks the plants save to dig down and kill it.

H. B. B., Edge Moor, Del. Have some vacant places in my rows of plants. Shall I fill them in with runner plants this fall or next spring? If the former, at what time should the transplanting take place and under what conditions?

The filling in of the vacant places in the rows should be done in the fall, the latter part of September preferably. Take a day after a rain has fallen, and while the earth is yet moist and soft lift the plants, being careful to have as much soil adhering to the roots as possible and reset them in the vacant spaces. Set in this way and under such conditions, the plants will thrive finely, and your patch made complete with symmetrical rows.

A. F. B,, Cedarburg, Wis. The August number of The Strawberry is very fine. The answers to my questions cover the ground thoroughly. I want still more information, however. I have three acres of corn land on part of which I wish to plant strawberries next year. This ground is badly infested with grubs. Is it safe to put out strawberries there under the circumstances? And is there any way of treating it to destroy the grub after the corn is cut? Can insecticides be used to destroy them while plants occupy the ground?

The presence of the grub in the ground is a grave menace to the plants, and it will not be safe to set strawberry plants there so long as these pests remain. Grubs are not susceptible to treatment by the use of insecticides either when the plants are in the ground or at any other time. The remedy is to plow up your land this fall very late—just when the frosts are effective. Turning up the soil at that time will bring the grubs on top, expose them to the frost and the attacks of birds and thus they may be utterly destroyed. But be sure that you have accomplished this before setting out your plants. To set plants in a place, or near a place, known to be infested with the grub is an open invitation to failure. We may add that everyone should remove his strawberry patch as soon as he can do so after discovering the presence of grubs, and get the patch as far away as possible from the infested section.

J. W. K.. Woodstock, N. B. After the first node forms is it right to keep the runner cut off until the first plant gets well rooted?

2. Should the foliage be mowed off plants set this spring?

3. In setting plants shipped from a distance should the dry tips of roots be pruned and should earth be pressed firm when setting?

It is unnecessary to cut off the extension part of the runner after the first node forms. If you will lay a little soil on the runner wire just back of the first node, a new plant will be formed immediately which will send its roots into the soil. During this process of development the extension part of the runner wire will continue to grow and it will also form a node which may be treated the same as the first one. And the second runner plant from the mother plant will be just as good as the first one.

2. It will not be necessary for you to mow the foliage off of your plants which are set this spring. The mowing is only

TEXAS TO THE FRONT

Is Coming so Fast
You Can Hear It!

No other section of the country offers such inducements to the **Home-Seeker the Health or Pleasure-Seeker, or the Capitalist**

A Mild Climate
Fertile Lands (and cheap)
and
Busy, Growing Cities

I. & G. N.
"The Texas Railroad"

With more than 1,000 miles of track, traverses the most favored sections of the state, operates through cars from St. Louis, Memphis, etc., in connection with Iron Mountain Route.

We shall be pleased to answer inquiries. Send 2c stamp for the Texas "Red Book," containing interesting facts.

D. J. PRICE, G. P. & T. A.,
Palestine, Texas

done on plants after the crop of berries has been harvested.

3. It is always best to cut the ends of the roots off of all plants before setting them out. Wherever the cut is made there a callous will form and from this callous numerous feeding roots will be sent out, thus making a much stronger root system. The soil should be pressed very firmly around the roots of the plant after it has been set out. By doing this you not only prevent air from coming in direct contact with the roots, but you also put the roots in close contact with the soil, so that the feeders can take hold quickly.

E. O., Delaware, Ohio. We have had a very wet season, and plants are badly affected with leaf-curl. Have sprayed the plants with Bordeaux mixture, and wish to know if a second spraying is necessary; if so how soon; and how often should plants be sprayed?

2. Does it make any difference what time of day the spraying is done?

3. If it should rain within twenty-four hours after the plants have been sprayed, should the work be repeated?

4. Will it be beneficial to cut away the affected leaves of the plants?

5. Is it necessary to hoe under the heavy foliage of the plants?

Leaf curl requires more Paris green in the Bordeaux mixture than commonly is used. To the fifty gallons of Bordeaux add ten ounces of Paris green, rather than the customary six or eight ounces. The second spraying should be within a week or ten days, depending upon the condition of the plants and the effect of the former spraying.

2. Do not spray while the dew is on the vines in the morning. Any other time will serve equally as well.

3. Rain will cause some loss of material. If it be very heavy the plants should be sprayed again within four or five days.

4. Yes, it will be well to cut away the infected leaves.

5. Hoe under the foliage only when surface crust forms. Never permit a crusted surface in the strawberry field.

H. F. C., Manchester, N. H. We have a small piece of land that grew heavy grass and clover this year that we want to set out to strawberries next spring. When we got through haying we put seven pigs on the land, and they are rooting it up in great shape. Now we want to know the best way to treat it to set the plants out next May.

The first thing to do with the land is to break it up, seeing to it that the sod is completely turned under. Then sow rye at the rate of five pecks to the acre, which will grow into a fine cover crop. During the winter cover the plot with a liberal dressing of barnyard manure and, as early as the soil is in condition next spring, plow this under and harrow until the soil is thoroughly fined. This should make an ideal strawberry bed. Pigs are excellent soil restorers in more ways than one.

C. T. W., LaFayette, Ind. Please advise through The Strawberry how much straw is required per acre for winter mulching of strawberries?

2. How and when do you start a propagating bed?

Two and a half tons of good straw will cover an acre very nicely.

2. A propagating bed is started in the same way and at the same time as a fruiting bed. It is in the manner of runner-making and treatment of the plants that methods differ.

B. B. F., Concord, Mass. I have a bed of strawberries which I want to plow up and plant to strawberries again for home use. I know it would be better not to use this for strawberries again, but I must do so or have none. I cannot get stable manure very well and so must use fertilizer. I want to set out plants in August; will you kindly advise me what kind of fertilizer to use?

2. If asparagus, after being cut, would make good mulch?

While your plan is not an ideal one, yet it may be successful if you will first burn the bed over. This will destroy all insects and fungi. After the ground has been broken, prepare it thoroughly and sow to rye, sowing about five pecks to the acre. This winter, after the ground has been frozen, spread well decayed manure lightly over the rye. In the spring, replow this and work the manure thoroughly into the soil before setting the plants. If you cannot get the stable manure, we would refer you to Bowker Chemical Works, Boston, who prepare a special brand of commercial fertilizers for strawberries.

2. We never have used asparagus tops for mulching, and doubt very much if it would be of much value on account of its lightness. However, if it was spread quite thickly over the plants and well tramped down so the wind would not blow it off, it would serve your purpose. If you can get some kind of straw it would be much better than the asparagus tops.

H. K. S., Xenia, Ohio. I wish to set out about an acre of plants next spring; the soil is red clay, well drained. If it is manured now and plowed and sowed to rye, will it need another coat next spring? It is an old orchard, the trees having been cut down and ground cultivated three or four years.

2. Will the bisexual plants bear as well without the pistillates as with them?

If you give your soil a very liberal dressing of manure before plowing this fall, it may not be necessary to put on any manure next spring. You will be the best judge of the condition of the soil. If it has been in vegetables for the last three or four years, and its fertility well

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

Chas. S. Chase, Agent. 622 Chemical Bldy., St. Louis, Mo.
M. A. Hays, Agent 225 Dearborn St. Chicago, Ill.

The Land of Big Berries

ARKANSAS and TEXAS

Choice locations along the

IRON MOUNTAIN ROUTE

Full information Free. Write to

H. D. ARMSTRONG, T. P. A. 88 Griswold Street DETROIT, MICH.
ELLIS FARNSWORTH, D. P. A. 186 Clark Street CHICAGO, ILL.
N. C. TOWNSEND, G. P. & T. A. ST. LOUIS, MO.

maintained during that period, it should be in very fine condition for strawberry plants after the treatment you purpose giving it this fall. But if its fertility has been affected by cropping, it will be all the better if you will apply the manure liberally this fall and then during the winter scatter a light dressing on the rye and plow all under next spring.

2. Bisexual plants are in no degree affected by the presence of the pistillate varieties and yield equally as well when they are present or absent.

L. W. F., Penticton, B. C. As manure is hard to get here, what shall I do to enrich the soil in my new berry patch so that I may get fruit next year? Prices for berries are high here—no trouble to get 18 cents for all we can raise. The Strawberry certainly does "deliver the goods." It is the best ever.

It is difficult to get soil into ideal condition without some manure, but if manure positively may not be had, we would recommend the growing of cowpeas for humus. These could be turned under in the fall and you should be careful to see that they are not too deeply turned under, as it always is better to have the vegetable matter sufficiently near the surface to cause it readily to decompose. Then in the spring the soil should be replowed, after which sow 400 pounds of finely ground bone meal and 200 pounds of potash to the acre. This should be incorporated with the soil before the plants are set. The cow peas will be so thoroughly decomposed that they will work up into the soil and make a loose, spongy bed for the plants. The strawberry grower must never lose sight of the fact that humus is as necessary in the soil as is plant food. The price your berries bring certainly justifies you in setting out several acres.

E. M. S., Thornville, Ohio. We raised over 8,000 quarts of strawberries last year. They were large and well-shaped, but did not keep well. We have Clyde, Haverland, Senator Dunlap, Luther, Aroma, Sample, Dornan and a few others. Our soil is clay with considerable sand, enriched with stable manure. They were raised mostly in narrow half-matted rows. What can be done to make them firmer and better keepers? Will keeping the plants thin and free from weeds alone do it, or is there something lacking in the soil or in the varieties named?

The main causes of your berries' failure to hold up well appear to be an oversupply of manure and your plants being in a half-matted row. The manure furnishes nitrogen in excess of potash, which tends to make the berries soft. As your soil is a sandy loam we would recommend fifty bushels of wood ashes to the acre. This may either be scattered between the rows now and cultivated in, or you may spread it over the ground you intend to set to plants next spring after it has been broken up; then work thoroughly into the soil. We would also advise you to grow your plants either in single-hedge row or in a wide double-hedge row. By the latter we mean to leave plenty of space in the row between plants. Either of these methods will allow enough sun and air to penetrate the foliage, which will aid greatly in firming up the fruit. Your varieties are all good ones, and by following these suggestions you will secure excellent results with them. If ashes are not available you may use 200 pounds of either muriate or sulfate of potash and 400 pounds of finely ground bone-meal to the acre, applied in the same manner as are the ashes. But be careful that these fertilizers are not thrown directly upon the plants, as to do so would result in burning the plants.

G. W. L., Sioux Falls, S. D. I want to say for the benefit of other readers of your valuable magazine that I have found at the horse-shoeing shops what I conceive to be the ideal manure—the winter accumulation of horse manure, free from all coarse hay or straw and weed seeds, and full of decaying hoof parings. I have visited all the leading shops in this city and found large piles of decomposed manure which I get for the asking and have hauled many loads of it. What do you think of this manure for strawberries?

2. I have one and one-half acres of raw prairie sod broken up this spring and planted to navy beans. Would you advise setting this to strawberries next spring, or would it be better to put it to potatoes next year and let strawberries follow? If put to berries next spring how can I best prepare the land?

The manure of which you speak will be ideal for strawberries However, we would suggest that you use it quite sparingly, as it is very rich in nitrogen. The best way to apply such manure as this is to spread it on the surface of the ground after it has been broken up and mix it thoroughly into the soil with harrows and discs before setting the plants. If this may not be done it will be all right to apply on top of the ground during the winter the same as other manure, and turned under. When used as a top dressing four or five tons to the acre will be sufficient.

2. The fact that you have grown a crop of beans on this sod land is evidence that it will be all right for strawberry plants next spring. After the beans are harvested it would be well to break this ground up, and by doing this you will bring the old sod up to the surface so that the air will come in contact with it and cause it to decompose and thus to work up finely with the other soil. Five pecks of rye to the acre sown this fall will make an ideal winter covering. Then next spring replow the ground. This will put it into fine condition for the reception of the plants. If you have other ground that is better than this piece, then plant potatoes where your beans were grown. In this case the soil should receive a heavy dressing of manure this winter. The potatoes will take up the rankest part of the manure and add greatly to the mechanical condition of the soil. If set to berries a light dressing of manure spread this winter will aid to put your ground in splendid shape for them.

F. H. C., Marston, Mont. I have a small recently drained lake bed on part of which potatoes are growing, very rank and vigorous. I wish to set out some strawberry plants there next spring; soil is very black, rich looking and retentive. What variety or varieties had I better set out?

2. Had I better grow them by the hill method, or single-hedge row?

3. Is there any early variety that would do well in the above described soil?

It is more than likely that your land lies quite low, and in view of this fact we would recommend all late varieties. The Parker Earle, Mark Hanna, William Belt, Dornan, Pride of Michigan and Gandy should give you excellent results. The Sample also would do well, as it has a hardy bloom and is not readily affected by frost.

2. It also is likely that your soil is rich and will produce a large foliage, and for this reason we would recommend the single-hedge row.

3. The main objection to setting any early variety on a low piece of land is the danger of late frosts injuring them while they are in bloom. Excelsior and Texas make a very heavy foliage, which to a certain extent is a protection to the bloom from frost. Set only enough of the early ones to test them.

T. E. H., Sedalia, Mo. Would an orchard about five years old be suitable for a strawberry patch?

2. Am I to understand that after plants are set out all runners should be cut off the first year?

It depends somewhat upon the class of trees you have set in this orchard, and the distance apart. If the trees are small and not closer than from twenty to twenty-four feet, two or three rows of strawberries may be set between the tree rows. One of the largest crops of strawberries we ever grew was in a young orchard, and while cultivating the berries the trees also received the attention so essential to their success; thus we killed two birds with one stone. Not only will the strawberries pay all the expense of caring for the orchard, but will give you a handsome profit beside while the trees are coming into bearing. However, it is not a good plan to set strawberries in an

orchard where the trees are large enough to shade the ground. The roots of a tree always extend as far from the trunk below the surface of the ground as do the branches above. We mention this in order that you may judge of the conditions in your own orchard.

2. The cutting of runners depends upon the system of culture you intend to follow. If the hill system is followed, of course all runners should be cut off as fast as they appear; if the single or double hedge system, then leave runners enough to make the desired rows.

D. F. J., Wichita, Kan. My soil is a rich loam, rather light. I am going to spread manure liberally this fall after plowing. Will not have it in time to plant a cover crop. Will this be sufficient?

2. What varieties will do best? I want berries of quality rather than of quantity, as I am in a city of about forty thousand, and competition is keen, both from home grown berries and those grown in Missouri and Arkansas. I had thought of planting Haverland fertilized by Senator Dunlap and Parker Earle. The Senator has grown splendidly this last summer. Would the other two do all right in our soil and climate? It never gets very dry here.

3. How far apart should the rows be to be cultivated with a twelve-tooth cultivator? How far apart should they be set in the row when grown in the single or double hedge or hill system? The size of the patch is an acre, and I am counting on it to take me through college. The first crop will be harvested just after I graduate from the city High school.

Your rich loam soil should give fine results by spreading the manure thinly over it this fall. The manure itself will act as a shade and prevent the soil from puddling during the winter months. Of course, it would be still better if you could sow rye which would take up the manure leachings and hold it in reserve for the plants next season, but as you say you cannot do this, you must do the next best thing and let the barnyard manure act as a covering.

2. As quality is your chief aim, we would suggest varieties that produce large and highly colored berries, such as Texas, William Belt, Dornan, Pride of Michigan, Sample and Mark Hanna. Many other varieties produce fancy berries, but these are among our leaders. If you will take pains to pack your berries, being careful to have them the same all through the box, and arrange the top layers of each box attractively, you need fear no competition. You will get splendid results from all the varieties you name excepting Parker Earle. While this is an excellent variety, we would not recommend it for your state.

3. The distance apart the rows are to be made will depend upon the system under which you will grow the plants. If in single-hedge, three feet will give plenty of room. For the double-hedge row we would recommend three and a half feet. For the single or double hedge rows we should set the plants from twenty-four to thirty inches apart in the row, depending upon the variety. For hills we would set fifteen inches apart in the row. We believe that by careful management you can make your single acre of strawberries pay your way through college, besides giving you first-class experience in plant culture as well as in a business way. And you may count on The Strawberry to help you through.

J. W. L., Erie, Kans. In your answer to E. L. P. in August Strawberry as to the best method of renewing for a second crop a narrow-hedge row, you say: "Then you should go along the rows with a hoe and cut out all the old plants, leaving the healthiest and youngest plants about sixteen or twenty inches apart in the row," etc. Do I understand you to mean that where berries are grown strictly by the single-hedge row, and first set this spring, that the mother or original plants should be cut out next spring? If this is true, how do you renew a patch grown to the hill system? If the plant set this spring to the hill system will produce a good crop the second year, why will one set and held strictly to the single-hedge row not do so? I have a nice patch that I am growing strictly to the single-hedge row, and my intention was to cut and burn off the tops next spring and let the plants come just as they stand now—about six inches apart in the row—and let no new runners take root next season. In other words, fruit the second year the same plants that I am now growing for the first crop. Do you advise against this, and if so why would not these plants fruit as well as those grown by the hill system?

2. I am growing some strawberries in my greenhouse with a view of fruiting them this winter. It is now stripped of its top, which is of ordinary hot-bed sash 3x6 feet, which I remove in the spring and replace in the fall. My plants are making a nice growth and looking fine, the beds being on the ground. Now should I place my sash on the house before any frosts fall? Will frost alone, without a freeze, damage the plants that I want to fruit this winter? Should these plants be grown vigorously until they fruit, or should they have a check of some kind, and if so what would you advise?

3. I also wish to spray these plants with Bordeaux mixture from now on to prevent the possibility of fungous disease after I close up the house. How often should I spray them, and how long should I continue the spray with reference to the fruiting season?

4. Please give formula of Bordeaux mixture alone.

In the answer to which you refer we were considering an old bed that had fruited one year, and cutting out the old plants and leaving the strongest young plants, practically renewed the bed. However the mother hills would produce a good second crop. Where berries are grown in hills it is absolutely necessary to let the hills fruit the second year, as there are no young plants to raise the crop. Of course, you may leave the full single row to fruit for the second crop just as it is, but experience has taught us that where a bed may be prepared early for the second crop it is better to thin out the old and weaker plants and allow new runners to form. For a second crop it really is best to permit a double hedge to form.

2. It will be unnecessary for you to replace the sash before light frosts, as it is the nature of the plant to become somewhat dormant before opening its fruit buds. It would be well to cover, however, before freezing weather arrives. As to forcing your plants we would suggest the same treatment in the hot house as in the field. That is, do not continue forcing them by excessive watering or by the use of nitrogenous manures at the time they are building up the fruit buds. They will start to do so anywhere from the 1st to the 15th of September.

3. Two or three sprayings of Bordeaux mixture should be ample to prevent any fungous growth. The spraying in the greenhouse should be done at intervals of two weeks.

4. Here is the recipe for Bordeaux as asked for: Dissolve four pounds of blue vitriol in twenty gallons of water. Put in coarse sack and let the sack float on top of water. Now take four pounds of lump lime, put in separate vessel and slake in four gallons of hot water. Add to this enough water to make twenty gallons. When lime solution is cool, combine with the blue vitriol. For ten gallons, take one-fourth the amount, and so on for any quantity you wish to prepare.

$39 FURNACE Wrought, not cast. Riveted, not cemented. 3-in. thick life time fire-box. NEVER gets dirty. On trial. $15 down. Tools free. Can be set up by any one. Illustrated book, showing how simple it is, sent free. Schafer Furnace Co. Box C, Youngstown, Ohio

IT is never too late to be happy;
It is never too late to smile;
It is never too late to extend a hand
And a cheerful word once in awhile.
For all the sorrow and worry
On all this green-covered earth
Is followed soon, if we wait and hope,
By a generous measure of mirth.

Jeanette Lawrence.

MEN who are resolved to find a way for themselves will always find opportunities enough. If they do not lie ready to their hand, they will make them.—Samuel Smiles.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - - Manager

ROBERT S. FOUNTAIN Western Representative
315 Dearborn St., Chicago, Ill.

S. E. LEITH Eastern Representative
150 Nassau St., New York City

Address Communications and make all Remittances to The Kellogg Publishing Co., Three Rivers, Mich.

SUBSCRIPTION PRICE:

United States and Canada - - $1.00
Foreign - - - - - - - 1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

SEPTEMBER, 1906

THIS month's cover is a photo-reproduction of the strawberry field of E. E. Keever, Little Rock, Kan. In 1905 Mr. Keever set out 100 plants, composed of Senator Dunlaps, Crescents and Marshalls. He says that he followed The Strawberry "way," both as to the selection of only the best plants and the manner of cultivating them. He kept them perfectly free from weeds, which also means that he held the moisture in the soil, as both of these important performances are accomplished in a single operation. From the 100 plants and their progeny he picked in June 1906 berries to the number of 733 quarts and sold them for $81.50, or an average of 11 cents plus per quart. As he paid his pickers $8.46, and $2 for boxes, or $10.46 in all, his net receipts were $71.04, or a little under 10 cents a quart. From this one-fourth acre Mr. Keever gathered enough berries to pay off the last dollar of the mortgage on his home, and he is going to double the size of his field in 1907. "I think more and more of The Strawberry—it is up to date," writes Mr. Keever. The picture shows Mr. and Mrs. Keever, their three sons and three pickers; also Mr. Keever's statement of faith in the superior excellence of the strawberry, modified somewhat from the motto on the title page of this magazine.

IN the August issue of The Strawberry appeared an illustration and an account of the Fendall strawberry. Mr. Fendall, writing The Strawberry under date of August 7, says that he "picked a few berries from his row of Fendalls May 25 and gathered a few on the 4th of July. In all I picked from a row thirty-two feet long thirty-eight quarts of berries. I had an engineer measure the ground allowing a foot on one side for the pickers to walk, and he figured out that one acre, at the same rate of production as this row, would yield sixteen thousand eight hundred quarts." He adds that on either side of the Fendall were rows of two popular varieties, and all were cultivated alike, but that the Fendall yielded quite three times as heavily as either of the others.

THE consumption of fruit in the United States grows rapidly with the years and quite out of proportion to the increasing population. No other fruit shows greater progress in this direction, so far as statistics in hand go, than the strawberry. More than $15,000,000 worth of them were consumed during the fiscal year ended June 30, 1905, while the quantities produced that never got into the statistical reports at all is something beyond computation. Orchard fruits sold for $84,000,000, roundly speaking, the berry crops brought $20,000,000, and we paid $10,000,000 to the American sub-tropic fruit growers and $25,000,000 to the tropical fruit folk of the Spanish-American countries in the same year. The manufacture of fruit baskets and boxes in which to handle the annual crops of this country represents an industrial product valued at $7,000,000.

THERE comes to our desk this montn a new and handsome monthly periodical from the Hood River district of Oregon. It bears the suggestive title "Better Fruit," and starts out with intelligence and vigor upon the mission its name suggests. We do want better fruit and more of it, and it is well that an organ of the fruit interests in the vast and splendid fruit region "where rolls the Oregon," thus early in its history is established on these broad and helpful lines. We welcome all such aids to better horticulture, and shall be glad to co-operate with this new candidate for public favor in the task it has set for itself. Beautiful half-tone illustrations and clear letter-press dignify this fine publication and give it a distinction all its own. E. H. Shepard and E. A. Franz are its publishers, and it is printed at Hood River, Oregon.

ONE of the unfailing signs of the approach of autumn, notwithstanding the fact that mercury still climbs to lofty and discouraging heights in the thermometer bulb, is the presence of the advertiser in our pages. And we welcome him as the harbinger of a new season of business activity and as an expression of his satisfaction with the way in which The Strawberry has brought its two friends—the reader and the advertiser—together in the past. For both Stark Bros., who occupy a full page in this issue, and the Kalamazoo Stove Co., who had a half-page in the winter and spring issues, and Mr. Cooper who, though not so extensive an advertiser, still is taken just as good care of—these are with us again, and we have the assurance that we are to have all our old friends and many new ones with us as the season advances. And what is most gratifying is the fact that all who have patronized these advertising friends have themselves become friends of theirs, because good goods and square dealing are the governing principles under which our advertisers operate. We also welcome the new advertisers and are sure they also will find a cordial greeting in the thousands of homes into which The Strawberry goes as a welcome visitor each month.

WRITING from Honolulu, Hawaii, under date of August 3, Jared G. Smith of the Experiment Station there thus advises The Strawberry concerning the situation in that country as it pertains to strawberry production: "The Chinese gardeners cultivate a very small fruited, soft variety which I believe to be a descendant from one of the French everbearing sorts, as there is a record of strawberries having been imported from France some twenty or more years ago. Whatever the variety, the plants have the everbearing habit, so that we get three or four crops a year. The berries are of very good flavor but are rather tiny and too soft to ship. Strawberries grow very well in all districts on the islands at elevations above 1200 feet and many planters and farmers have procured plants of the best named strains. All varieties show a tendency to run out in this climate. The yields are smaller than in cooler countries."

AND from Saltillo, Mexico, comes to us a most interesting letter from J. R. Silliman, evidently a Yankee farmer, who has gone down there and established a Jersey milk farm, and guarantees in Spanish that his product is "absolutamente pura," or absolutely pure. Mr. Silliman also is interested in strawberry growing and has a gardener from Irapanto, which is known as the "Strawberry station" in Mexico, and this gardener follows "his own ideas about plants," says Mr. Silliman, "and they are probably pretty much the same as his grandfather's father observed." Yet, notwithstanding the fact that no rain fell there from March until July 4, our correspondent says that "fresh berries are offered for sale every day in the year, winter and summer, Sunday and Monday." Which suggests the adaptability of the strawberry to any conditions of soil and climate, and its persistency under the most discouraging environment.

$33 to the Pacific Coast

From Chicago, every day from September 15 to October 31 inclusive. Only $33, Chicago to San Francisco, Los Angeles, Portland, Seattle, Tacoma, and many other points on the Pacific Coast. $30 to Ogden or Salt Lake City. Low rates to hundreds of other points. Name your exact route---the

Chicago, Milwaukee & St. Paul and Union Pacific-Southern Pacific Line

Tickets good in through tourist sleeping cars. Rate for double berth, Chicago to Pacific Coast points, only $7. Through tourist cars to California leave Union Station, Chicago, at 10:25 p. m. daily. For complete information (free) about rates, routes, tickets and reservations write today to

THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY

F. A. MILLER
General Passenger Agent
CHICAGO

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO.

STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK.
PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

For 82 Years **STARK TREES** have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."

A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1¼ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

Grow Apples that PAY the Producer and Please the Consumer

KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inlerior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

October 1906

MASSACHUSETTS AGRICULTURAL COLLEGE

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

1907 Reading for Strawberry Folk

OUR CLUBBING COMBINATIONS FOR 1907

See These 3 Big Triple 3's

The Strawberry	$1.00
The World Today	1.50
American Magazine	1.00
Breeders' Gazette	2.00
Housekeeper	.60
Total Value	$6.10

3 .33 FOR ONE YEAR

WHETHER we consider these clubbing propositions from the view point of their literary or practical value, or because of their low cost, they are equally remarkable and attractive. To secure such a fund of fine, stimulating and helpful reading matter at so low a price is, to say the least, unusual, and The Strawberry takes great pleasure in thus presenting its readers with the opportunity, feeling it is scarcely necessary to urge all to take advantage of it. Please note that in both $1.95 and $2.95 offers each reader has a choice of one selection. All new subscribers will receive The Strawberry from date of subscription in 1906 through the entire year of 1907.

The Strawberry	$1.00
Farmers' Voice	.50
Breeders' Gazette--weekly	2.00
Farm and Fireside	.50
Boys and Girls	.50
The Housekeeper	.60
Choice of any 50c magazine named	.50
Total Value	5.60

$2.95

The Strawberry	$1.00
World Today	1.50
Breeders' Gazette	2.00
Farm and Fireside	.50
Boys and Girls	.50
Choice any 50c magazine named	.50
Total Value	$5.50

List of $1 Magazines

which may be substituted for any $1 publication mentioned on this page

Gleanings in Bee Culture	$1.00
Western Fruit Grower	1.00
Success	1.00
American Magazine	1.00
Little Folks	1.00
The Garden Magazine	1.00

The Strawberry	$1.00
World's Work	3.00
Delineator	1.00
McClure's	1.00
Total Value	$6.00

3 .33 FOR ONE YEAR

IF you want any publication in the country and don't find it in this list, send to us for it, or make any combination you desire. We purpose to furnish our folks with the best and most desirable literature in the world at the lowest possible price at which it may be had.

The Strawberry	$1.00
Farm and Fireside--semi-monthly	.50
Housekeeper	.60
Western Fruit Grower	1.00
Choice of any 50c magazine named	.50
Total Value	$3.60

$1.95

The Strawberry	$1.00
Farmers' Voice	.50
Housekeeper	.60
Farm and Fireside	.50
Boys and Girls	.50
Choice of any 50c magazine named	.50
Total Value	$3.60

LIST OF FIFTY CENT MAGAZINES

Which may be substituted as desired for any 50c magazine named in any of the combinations on this page

Apple Specialist	$ .50	Farm Poultry	$ .50
Reliable Poultry Journal	.50	Poultry Success	.50
Am. Poultry Journal	.50	Green's Fruit Grower	.50
Poultry Tribune	.50	American Swineherd	.50

The Strawberry	$1.00
Review of Reviews	3.00
Woman's Home Companion	1.00
Success Magazine	1.00
Total value	$6.00

3 .33 FOR ONE YEAR

THE STRAWBERRY — One Hundred and Eighteen Portage Avenue — Three Rivers, Michigan

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 10 Three Rivers, Mich., October, 1906 $1.00 a Year

WHAT CAN A WOMAN DO? is the suggestive title of a recent volume, and it is a question that millions of bright and aspiring women are today asking—women who seek independence on the one hand, or who, by force of circumstances, are compelled to self-support, perhaps, indeed, to be the support of others. It is a grave question with many of them, and the correct answer to it would be to them such a blessing as none can know who has not been placed in their situation. Modern conditions and the modern outlook upon life, as it relates to the social and economic position of woman, have worked extraordinary changes and made necessary an entirely new departure for her. Even the wife and mother finds herself surrounded by quite different conditions from those her mother serenely lived among. What can a woman do? then is become a question of large importance to herself and to the world, and he who answers it correctly for one honest and sincere woman has performed a service of value to society in general as well as to the individual beneficiary.

And what can a woman do? Think it over, and consider all the occupations women are now filling with no greater variations as to success or failure than those which obtain in the case of her brothers, and the question would seem more apropos if stated thus: "What is there that a woman cannot do?" Yet when we go a little deeper into the question and observe the conditions under which she labors, we find that much of her work, as now performed, is repugnant to her very nature, deadens interest in life, destroys that sweet femininity which is woman's greatest charm and greatest blessing to the world as well, and takes her out of her sphere.

The question, then, is rather: "What can a woman do to obtain a livelihood in work congenial to her nature, to her desires, and the tendency of which is to inspire, encourage, develop her along the lines of her own being?" Correctly to answer this question would indeed be a great world-service. As a primary postulate it may be laid down that whatever comes nearest to the home life in its nature will be the occupation best calculated for woman. As she is the home-maker by nature, it must be in the shadow of the home that her ideals shall be achieved, her life lived out in its fullness. Therefore, we must place her in some occupation which, if it do not come within the actual walls of the home, with husband and children as objects of her first care and solicitude, yet shall be so connected with a sheltering roof as to bring her directly within the sphere of its influence and permit her to work out under its protecting beneficence her own ideals.

The mind is brought insensibly to the garden, with its flowers and plants and other growing things, when we reach this point in our search for the answer to the question. And whose hand is better shaped than woman's to give the touch that plant life so much appreciates, and to which it so eagerly responds? And whose mind enters with keener sympathy into the needs and nature of these gentle friends of humanity than woman's? It is the world's experience that woman, whenever she has sought divertisement or gain along these lines of endeavor, has succeeded well, and has found joy and pleasure in her achievements.

If the changes wrought in the social and economic life of woman have been revolutionary, other revolutions have gone forward synchronously, and if her necessities have increased, so have the necessities of the world; and these she may help to supply. Today the great cities are unable to secure needful supplies of fruits and flowers—needful for their health, needful as offsets to the mode of living in crowded streets, the breathing of polluted atmospheres, the haste, the push, the scramble, the perpetual struggle. Here, then, is a field lying fallow to the hand of woman, and it is within the limits of this field that she may with assurance look for ample and complete satisfaction. What a woman can do in this direction is so large and so inspiring a possibility as to render anything like an adequate estimate out of the question.

Naturally, The Strawberry is inclined to consider in this connection the particular field it was established to represent, and yet it does so without undue bias, and whatever of enthusiasm it may display is founded upon actual results already accomplished by women within that field. All over this great land of ours, and among them are women by the score who will read these lines with approval, earnest, intelligent women are finding in their strawberry fields and "patches" sources of revenue sufficient for their support and for the education of

their children. The work is healthful, refined, inspiring, profitable. It is one which calls for little manual labor that is beyond the physical strength of delicate women, and this heavier work may be performed, where necessary, by men. The life is out of doors, and the strawberry season is the most delightful one of the entire year, over a large part of the country wholly made up of those rare days of June of which Lowell sings with so fine rapture.

Is there not here the answer to the question, the solution of the problem? Certainly the opportunity is present and none may comprehend its greatness. It only requires the energy, intelligence, a certain degree of skill in growing the strawberries and good judgment in marketing them, to insure success to any woman who will undertake the work. We believe that in no other direction may so large success be made, considered from the little capital needful to enter upon the work, and so little to carry it forward. Surely here is something that every woman can do; do with satisfaction to herself as a woman; do with a degree of success worthy of her capabilities as a business manager.

AS years come and go industries of our country will prosper and decline, fortunes will be made and lost, even government may change its form, but so long as the world stands agriculture will be the foundation of national wealth and prosperity.—Aaron Jones.

Late Berries for The North

By R. C. Sabin

WE began in a small way five years ago under the rules laid down by the late R. M. Kellogg. And when we heard of his death we took it, wife and I, as a personal grief and loss. For we felt sure that his work could hardly be carried on by any others.

But the new catalogues came annually to hand and, to be frank, appeared to be more spicy than ever. But when The Strawberry came to hand we took it as a special act of Providence in our own behalf that the work had fallen into such able hands. For The Strawberry tells things in detail and in a style which can not be done in an annual catalogue. Long be remembered the old; long live the new!

We have discovered the truth of what you say, that none but big red berries are able to run the gauntlet of crate-dealer, picker, packer, local buyer, transportation, commission man and retailer. Our success has been only partial, but the fault has been with ourselves, as we could not, or did not until we got The Strawberry, realize the importance or profit in carrying out to the letter the rules laid down.

Each year we have ordered some new varieties for test in our soil until now we are about ready to begin in earnest to grow the "big red boys." We find that there is no use trying for early berries this far north, for several reasons. We have no home market, and to ship our early berries to Milwaukee or Chicago means simply that they come into competition with late berries from farther south. And here the early berry is either held back by late spring or is damaged by frost while in blossom. The late berry is our standby.

Ludington, Mich.

Cost of an Acre of Strawberries

I HAVE been a reader of The Strawberry for the past four months. I like it very much, and think it will be a great help to me. I wish to ask a few questions. I wish to put out at least one-half acre, or perhaps one acre, in the spring, and with the help I receive from The Strawberry I know I shall be successful, although the work is almost new to me.

What will be the cost of putting out one acre of strawberries on a sandy soil?

2. How many plants will it require?

3. What month shall I plow under the cowpeas this fall?

4. After cowpeas are plowed under, what must I do then?

Chandlerville, Ill. Mrs. R. L.

IT is difficult to give the exact cost of producing an acre of strawberries, as it will depend upon whether you follow intensive methods of cultivation, with a view to securing the largest possible yield, or just give them ordinary care, as the "average" grower is likely to do. So all that we can do will be to give the cost of the intensive methods, and you may cut down this cost at will, of course, with the inevitable lessening of yield and lowering of grade of the fruit. Here is a dependable estimate:

Fifteen two-horse-loads of manure at $1	$15.00
Team plowing, ½ day	1.50
Preparing soil (harrowing, rolling, etc.) team ½ day	1.50
Marking out rows, man ⅛ day	.50
7,000 plants at $4 per M	28.00
Setting plants, one man 3 days	4.50
Sixteen cultivations; man and horse 3 hours each time at 17½ cents an hour	8.40
Six hoeings	24.00
Mulching; 3 loads of straw at $2 per load	6.00
Spreading mulch, one man 1 day	1.50
Parting mulch in spring, one man ⅛ day	.50
With such intensive methods 6,000 quarts should be grown to the acre, which will require 250 24-quart crates, costing 8 cents each	20.00
And 6,000 quart boxes, at $3 per M	18.00
Making the crates; one man 2 days	3.00
Making the boxes; one man 3 days	4.50
Picking 6,000 quarts at 1 cent a quart	60.00
Foreman and man to carry berries to packing house	25.00
Packing berries in attractive form	12.00
	$233.90

RECEIPTS

Out of the 6,000 quarts, 4,000 at least should be fancy selects, which properly packed and well marketed should bring 10 cents per quart	$400.00
2,000 quarts of medium berries at 7 cents per quart	140.00
Total Receipts	$540.00
Total Expense	233.90
Net income for one acre	$306.10

As we have said, the expenses may be cut down greatly—as much as one-half, but in doing so the cash income will be much less, the pleasure will be lessened and you will not be building up a reputation that will insure you a ready market at high prices in the succeeding years. The estimates here given are based upon our own farm experience, and in giving the yield, have by no means overestimated, as many of our readers report much larger yields than here are given.

2. You may calculate upon from 6,000 to 7,000 plants to the acre.

3. The time of plowing under the cowpeas will depend upon the season, but you should not turn them under until the vines begin to ripen and become woody. By so doing time is given the nodules on the roots in which to mature. The early days of October will, on the average, be the proper time.

4. After the peas are turned under it generally is too late to sow rye, and we do not like the idea of leaving the ground bare during winter; therefore suggest that you cover the ground with manure, which will shade the ground, keep it from puddling during winter rains and increase its plant-food content.

The Farmers' Congress

THE Farmers' National Congress will open its twenty-sixth annual session at Rock Island, Ill., on the 9th of October. This organization is composed of delegates from the different states appointed by governors or departments of agriculture. One of the subjects to be discussed before the coming meeting is business methods in farming—a very important subject, as there is no business that we know of which, as a general rule, is carried on in a more unbusinesslike manner than is farming. David Rankin of Tarkio, Mo., and L. Whitney Watkins of Manchester, Mich., will discuss this interesting topic.

Mr. Rankin is one of the half dozen most extensive and successful farmers in the United States. He started without capital and is now a millionaire, nearly all of which he has made out of farming. He has 23,504 acres of fertile land in actual and high cultivation. He puts 16,000 acres in corn, on the average, and feeds and ships each year an average of 9,000 cattle and as many hogs. He has never before consented to prepare a paper or address for any meeting.

Mr. Watkins is a graduate of Michigan agricultural college, has served six years on the Michigan state board of agriculture; is president of the Michigan state association of farmers' clubs and president of the Michigan association of breeders of improved live stock. The Watkins farm contains 2,300 acres in the highest state of cultivation. The land was taken up by Mr. Watkins' grandfather from the government in 1834, and not an acre has passed from the ownership of the Wat-

kins family or been encumbered by debt, and a Watkins never has retired from farming.

Some of the Season's Experiences

THE season of 1906 has been a peculiarly difficult one for the horticulturist, although the extensive farmer who grows the cereals has been blessed to an unusual degree with large crops. Strawberry growers have had a particularly hard time outside of the Southern states, and the causes have been varied. Frost, excessive rainfall, extreme drought—all three of these natural causes have operated in as many sections of the land, and the white grub has been particularly active, if we may judge from reports received by The Strawberry.

One thing is especially encouraging, however, and that is the universal statement that the conditions are altogether unusual, and that, for from twenty-five to thirty years, according to the experiences of different individuals, nothing approaching this season's conditions have been known. H. E. McGregor of Wisconsin, writing in the Racine Agriculturist has the following to say on the subject: "Last winter and this spring, up to strawberry harvest, has been the most unfavorable season for strawberries I have known in the twenty-eight years I have grown them. The vines went into their winter's rest in excellent condition, and the prospects for good a crop for 1906 were above the average. Thus matters stood until we got our big storm of rain and sleet in January, which covered this whole section of country with about three inches of ice. This ice made splendid sleighing, but it smothered the very life out of our strawberry plants, so that when spring came strawberry plantations that were so promising in the fall were a sad wreck. Four-fifths of the plants were dead and the balance which were alive were so lacking in vitality that many of them succumbed to the cold, dry weather of spring that followed. There was scarcely any spring growth, and when blooming time came such blossoms as came out were on stems that formed close to the ground.

"Since the berries began to ripen we have had excellent weather, which would have given us a good crop had the vines been in good condition. As it is, we gathered hardly one-eighth of an average crop of inferior berries. There were no fancy berries in this locality this year, and the berry boxes we prepared last winter for the expected crop will have to be carried over to another year." Mr. McGregor takes occasion in his report to deprecate fall-setting of plants, in which he aligns himself with the most progressive growers of the country.

But notwithstanding the difficulties created by unusual meteorological conditions, the season has been a good one for the men who practice scientific horticulture and "do things" in the right way at the right time. Of course, no one can can defeat Jack Frost when he comes at you full tilt, and it is hard to turn great floods of water to good account save by creating a perfect drainage system. Yet even Jack Frost and floods have had their influence for harm greatly diminished by the skillful and persistent work of the up-to-date strawberry man. And the latter fairly has laughed in the face of long-continued drought; for with cultivator and hoe he has kept a dust mulch between his rows, and drawn his moisture from the depths, compelling all that did reach the surface to do so through the plants themselves.

Altogether it has been a season of rare informing quality, and the man who has come out of it sound and whole better than ever appreciates two important facts regarding strawberry production—first, the hardiness of the plant itself and its extraordinary endurance when treated just right; second, the effectivess of intelligent labor directed to the conservation of moisture in the soil, the feeding of the plant so as to develop its highest powers and to the general welfare of the fields.

IT is a perpetual source of surprise and pleasure to the one who loves nature and her ways and finds joy in the strawberry patch to try out different methods of growing them, to watch the conduct of different varieties under different methods of treatment and, in general, not only cultivate the plants, but cultivate as well a knowledge of them and their ways and thus increase one's own store of information while enjoying the delights and profits of strawberry production. For instance, have you ever tried the hill-system of cultivation just to see what a quantity of large, luscious berries one strong, healthy plant, full of vigor and sap, will produce when relieved of all its runners? The satisfaction of one such hill, so beautiful and so marvelous in the results secured, is hardly to be imagined. Strawberry growing may be made as full of charm as is the growing of flowers, and the beauty of a fine patch of strawberries is not exceeded by the finest flower garden.

Thinning Out Strawberry Plants

THE sentiment in favor of thinning seems to be growing stronger and stronger, writes L. R. Johnson in The Fruit Grower, for its advantages are too obvious to be overlooked. Thinning on the wholesale may be done with hoes, but it takes some nerve just as it does to thin fruit. To strike into the midst of a mass of fine plants is a heroic operation that is quite too severe an ordeal for many souls. And yet there is no manner of doubt that it will pay. The market is yearly paying higher and higher rewards for superior berries, and the grower who wants profitable returns for his labor must bestir himself to adopt improved methods. An easy way of thinning, and one that is fairly effective, but so mechanical and requiring so little judgment that common hired help may be employed, is simply to cut across the row every twelve inches with the full width of the hoe. The grower who has never employed any other method than the matted row should by all means try at least a few rods of narrow row with the runners spaced. Then let him compare the yield, taking into consideration size and color, with an equal length of matted row.

What Mr. Johnson says meets with our approval so far as it refers to a grower who has permitted his plants to mat up. But how much better would it be to start right and keep right clear through

A VIEW OF THOMAS HUNTER'S PATCH AT HOLMESVILLE, OHIO

36

Montgomery Ward & Co.'s

No. 75 Catalogue Now Ready FREE

Nearly 1300 large pages, thousands of pictures, 127,000 articles. The biggest bargain book ever printed. Beats all Catalogue records for quantity, quality and low prices. Full of many things you want that you cannot buy near home and multitudes of things of better quality and at lower prices than any other catalogue or store offers you.

Send for Your FREE Copy Today.

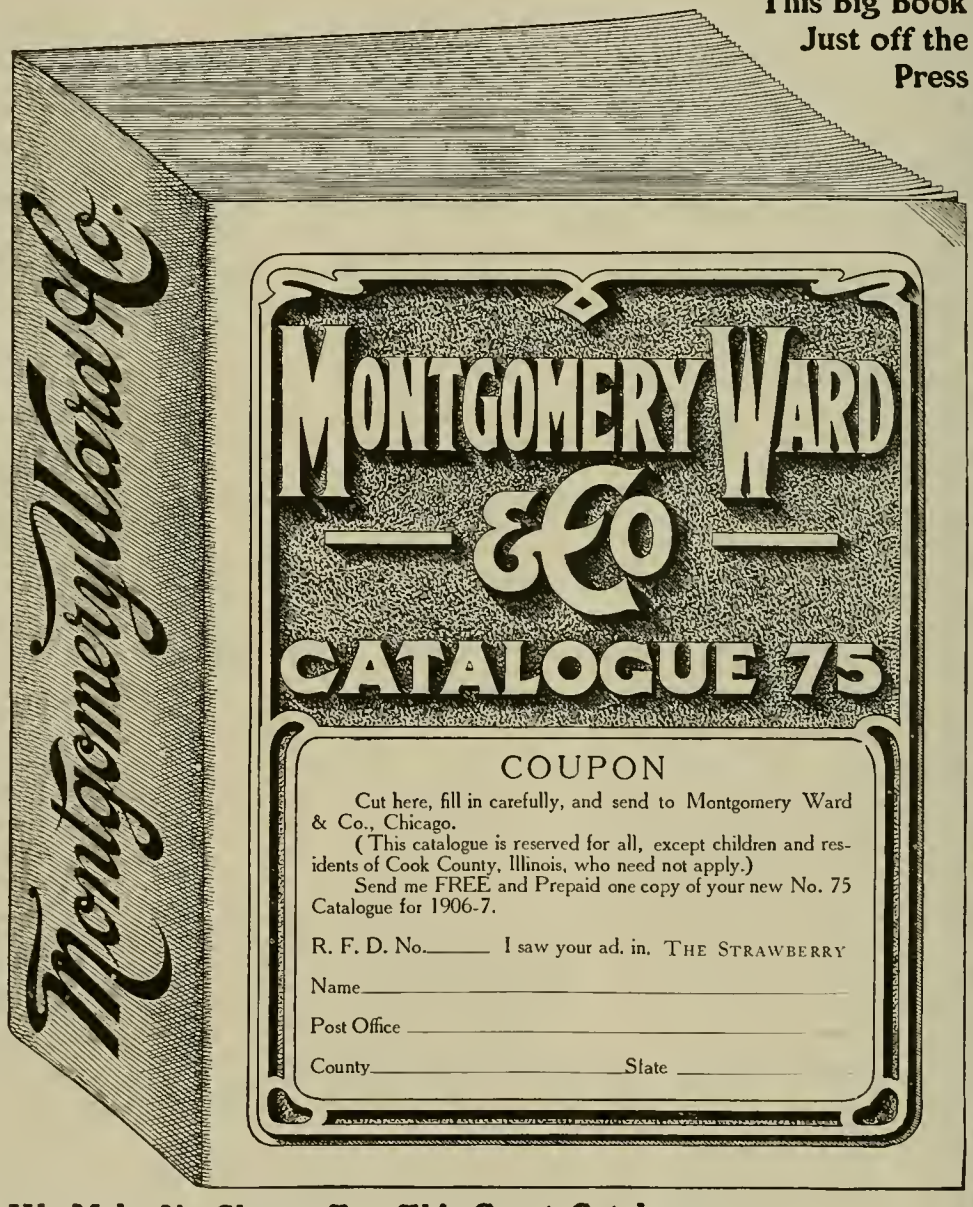
$50.00 a year, at least, is easily saved by every one using this No. 75 Montgomery Ward & Co. Catalogue to order goods from. Many write us of saving hundreds by being our regular customers. It pays others, it will pay **you.** We are the originators of the Catalogue business. We have been square with our millions of customers for 35 years—we will be square with you.

Valuable Premiums Free

In this new No. 75 Montgomery Ward & Co. Catalogue is an entire section devoted to our new **Free Premium Plan,** which illustrates and describes all the many valuable articles we give free to our customers, including Pianos, Buggies, Sewing Machines, Watches, Jewelry, Diamonds, Morris Chair, Couches, Chairs, Saddles, Books, Shoes, Carpets, Curtains, Tools, Scales, Harness, Stoves, Lamps, Violins, Guitar, Music Boxes, Sporting Goods, Clothing, Furniture, Dinner Sets, and very many other choice articles, all given to our patrons. It is worth your while to get this big No. 75 Montgomery Ward & Co. Catalogue for 1906-7 just to see this wonderful **Premium List** of things that await your selection if you become our customers.

Send your name and address carefully written on a postal card or in a letter, or attached to your next order, or fill out coupon in the picture; either way that is easiest. Just say "Send me free and prepaid one copy of your new No. 75 Catalogue." Do this before you forget it, right now. We will then send it at once.

This Big Book Just off the Press



COUPON

Cut here, fill in carefully, and send to Montgomery Ward & Co., Chicago.

(This catalogue is reserved for all, except children and residents of Cook County, Illinois, who need not apply.)

Send me FREE and Prepaid one copy of your new No. 75 Catalogue for 1906-7.

R. F. D. No._____ I saw your ad. in. THE STRAWBERRY

Name_____

Post Office _____

County_____ State _____

We Make No Charge For This Great Catalogue

We even prepay the postage. Ordering a copy of this large Free Book puts you under no obligations to buy anything of us. We ask you to send for it, read it, look at the pictures and prices, and then when you find out how much money it saves you you will be glad to order from it, for it means a saving of 20 per cent to 50 per cent on everything you wear, eat or use in any way. Remember this is no partial list or imitation of the Montgomery Ward & Co. Catalogue, but is the genuine, the latest, the complete, new, large Montgomery Ward & Co. Catalogue, Number 75, for fall of 1906 and all of 1907, full of the very latest styles and newest city goods of every kind that you can possibly want or use **DON'T DELAY**—send for your copy today. It will go to you at once, by return mail if possible, all prepaid and absolutely **free** of all cost.

Montgomery Ward & Co., Michigan Avenue, Madison and Washington Streets, **Chicago**

the season. That is to say, either grow in single or double hedge row, and when either of these rows has reached the ideal state, restrict the plants by keeping off all surplus runners. When this is done it does not require the heroic treatment to which he refers and is in every way a superior method of carrying on the work. The advantage ro the remaining plants where the runners thus are removed is beyond estimate, and the process results in increased yields and vastly improved fruit.

Mice in Strawberry Fields

FROM so many sources are coming reports respecting the damage done by field mice, or meadow mice, that we are impressed with the growing menace to successful horticulture, aye, even to field agriculture, from these ubiquitous and increasingly numerous pests. How shall we get rid of these pests? is a frequent inquiry now coming to The Strawberry, and it is a question of large importance.

Prof. D. E. Lantz, for a long time connected with the Kansas Agricultural College, now assistant in the bilogical survey of the Department of Agriculture, has given much thought and study to this matter, and in the Yearbook of that department for 1905 (a book, by the way, that every tiller of the soil should secure; and it may be had by asking your congressman or senator at Washington for it) Professor Lantz has a chapter on the subject which gives some very interesting experiments and some very wise conclusions.

On pages 373-374 Professor Lantz tells of a call he received in 1903 to an orchard and nursery in Kansas, and relates:

"As an experiment, the writer placed some wheat poisoned with strychnine at the base of about 50 of the badly damaged trees. This was done late in the evening, and on the following morning a considerable number of dead meadow mice and white-footed mice were found. An examination of the stomachs of both species showed that only the meadow mice had eaten the bark of the trees. The poisoning experiment had proved so effective that the owner of the orchard set his men to distributing poisoned wheat throughout the orchard, with the result that within a few days nearly all the mice had been killed.

"The ground in this orchard was literally covered by a network of runways made by the prairie meadow mouse, and many of the runways extended below the surface for long distances. Examination showed that many twigs, 4 to 8 inches in length, had been cut from the trees by the mice and dragged into the burrows, where they were found in little piles and entirely stripped of bark.

"It is to be carefully noted that the damage to this and other orchards in Marion County was due largely to neglect. On the greater part of the 480 acres mentioned corn had been planted the preceding spring, by listing it between the rows of apple trees; but a wet summer had prevented its cultivation, and the crop was abandoned, with the result that crab grass, sunflowers, and other weeds had grown luxuriantly. The weeds made a complete cover for the mice, and the entire summer was moist and favorable to the increase of the latter. The fall and early winter were very mild, and all the damage to the trees by mice had been done in this open period and not under stress of severe weather.

"During the cold weather that followed the extermination of the mice, rabbits renewed their attacks upon the trees. Many were killed by distributing pieces of apple into which powdered strychnine had been inserted by means of a knife. As many as twenty dead rabbits were counted in a single morning. While they were not entirely exterminated, the experiment demonstrated the efficacy of the method, especially in winter.

"An exceptional circumstance in connection with these poisoning operations was that no dead birds were found in the orchard during their progress. Remarkable as it may seem, short-eared owls, hawks, and crows fed freely upon the poisoned mice and rabbits without injury. Tree sparrows, juncos and quail were common, and it is strange that all should have escaped the poisoned baits. In distributing poison too much care, however, can not be used to avoid the destruction of valuable birds. . . .

"In the use of strychnine for poisoning field mice an ounce of strychnia sulphate is used to each half-bushel of wheat. The strychnia is dissolved in a pint of hot water and a pint of heavy sugar sirup is added. The combined wheat and liquid are then stirred until every grain is wet, when the mass is allowed to stand in the mixing vessel for twelve or more hours before it is distributed."

A FAMILY CROUP IN THE STRAWBERRY PATCH OF F. TEETER, LUCAS, OHIO

He urges care in handling this poison and that it be so used that birds may not be affected by it. Several suggestions on this head are made by Mr. Lantz.

In concluding his paper, Professor Lantz emphasizes the importance of radical treatment of this danger and points out how grave a menace are these tiny animals that infest field, meadow and orchard. And he indicates clearly how great is the responsibility of the individual to keep nooks and corners clean, for foul and unkempt lands are the breeding places for these as well as for all the other pests that menace agriculture in all its branches. Professor Lantz concludes:

"There is no escaping the conclusion that meadow mice are injurious to agriculture. It has been argued that they are to a great extent inhabitants of waste lands, and therefore not very destructive to crops, but such assertions are wide of the truth. The value of these mice as tillers of the soil or as destroyers of weeds, while not to be overlooked, is very slight in comparison to their destructiveness to grass, fruit, vegetables, hay in the stack, and orchard trees. Testimony of their recent ravages in foreign countries, is of itself conclusive as to their destructiveness, and their depredations in America, although less severe locally, have been nearly as great in the aggregate. The danger lurks in every swamp, copse, and waste corner, and the continued destruction of hawks, owls, snakes, and small carnivorous mammals, together with climatic conditions favorable to multiplication of the mice, must inevitably result in an outbreak of the animals. An invasion of meadow mice in this country,

where farming operations are on such an extensive scale, would be attended by ravages of crops such as have rarely, if ever, been experienced.

"Timely preventive measures are much wiser than corrective measures following an invasion. Among the more important preventive measures are: (1) The preservation, both by legislation and individual cooperation, of the natural enemies of mice. (2) The curtailment of the range of meadow mice by the drainage of swamps and the periodic plowing of grass lands for the rotation of crops. (3) The destruction of weeds, trash, and litter of all kinds about farm premises, gardens and orchards, to prevent meadow mice from obtaining the winter shelter necessary to their survival. (4) The burning of dead grass in meadows and pastures, to the same end. Care should be taken, however, not to burn the grass in late spring or early summer, when prairie chickens, quail, and other birds that build on the ground are nesting."

Rotation With Strawberries

THE number of years that a strawberry field can be profitably fruited will depend upon the soil, the amount of fertilizers used, the cost and availability of labor when needed, and the amount of work put upon the berries each year. In the past I have been governed by the many conditions after the fruiting season. From three to five years have usually been the number of crops secured. Since, however, using a transplanter, which has done better work and at less expense than hand setting, I shall not in the future pick over two crops, as I find it will be cheaper and better to set out new plants than to clean and fertilize the old fields, writes Elmer G. Tufts in Rural New-Yorker.

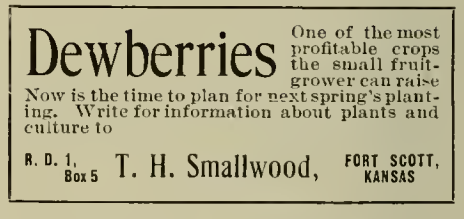
Clover is one of the best crops to turn under for a green manure. It adds the desired humus, and at the same time nitrogen, which is the most expensive element of plant food. I have adopted a four-year rotation, in which I secure four money crops and two crops to turn under to build up the soil and replace a part of the fertility removed. The first year the strawberry plants are set out a high-grade fertilizer is used. The plants are given frequent and shallow cultivation, to conserve the moisture. The second year the first crop is secured. The third year the second crop is harvested. Immediately after harvesting the second crop of berries the field is plowed, turning under the vines and what straw is used for mulch. After thoroughly preparing the ground it is planted to green stringless beans. This crop is harvested and used at the cannery, which is located on the farm. This gives us the third crop at the end of the third year. After the beans are picked the land is sown to rye as a cover crop. No land should be allowed to go through the winter without some covering. The rye will be turned under in the spring. While this crop will add little fertility to the soil it forms humus, and by its chemical action on the soil helps to make more available the plant food already in the soil. Tomatoes will be set out and given clean culture, a liberal amount of high-grade fertilizer used. This crop is also used at the cannery.

At the last cultivation the space between the rows is sown with hairy vetch and crimson clover. This crop does not interfere with the growth of the tomatoes, and the picking does not injure the cover crop. The clover and vetch will make a fair growth in the fall and early spring, so that by the time ground is in a condition to plow for strawberries we have a good crop to turn under. The crimson clover and vetch both being legumes of course add nitrogen to the soil. This is turned under in the spring of the fifth year, and strawberries set out to commence the rotation again. We thus have a rotation by which are secured six crops in four years, or a money crop for each of the four years, and two crops in four years to return to the soil. We also have a rotation in which none of the crops is a soil exhauster, and we can improve our farm each year. Strawberries and tomatoes are both, as everyone knows, largely water. I use the tomatoes and beans as crops to rotate with strawberries, as they work well together, are easily grown and I can convert them into a finished product upon the farm, so that they can be put upon the market in a condition that commands the highest price. Sweet corn is sometimes used instead of beans to plant on an old strawberry field after the crop is harvested. In some respects this is better than beans, inasmuch as a crop of crimson clover can be grown instead of rye, and clover is worth more to turn under as a green manure than rye. It is sometimes difficult to get a stand of crimson clover. I use a high-grade fertilizer; one especially rich in phosphoric acid and potash, as clover increases the supply of nitrogen.

Mr. Tufts certainly is following ideal methods, methods which give large returns for the present and are storing up soil-fertility, like deposits of money in the bank, for future drafts. We could do our readers no greater favor than to urge their careful reading and study of what he has to say. The only suggestion of a change that we would make is that cowpeas would be better than clover, provided he could get his money crop off by the middle of July, which will give the cowpeas ample time to make a heavy growth. This for the reason that the cowpeas make so much more humus than does clover, and there is no question that it is a better soil-improver.

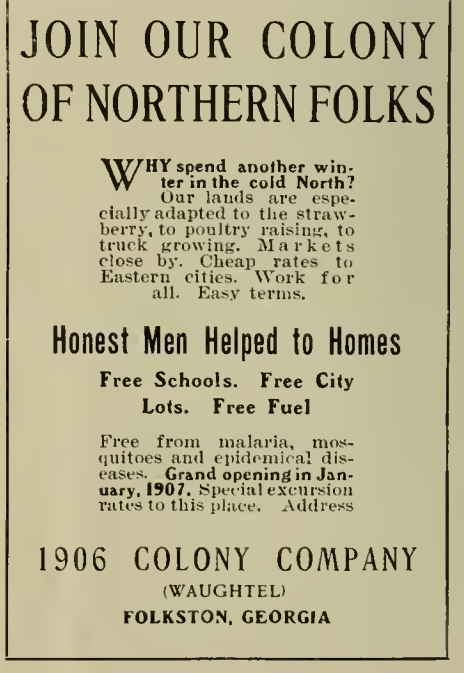
We notice also that Mr. Tufts plows under his vines and the straw that is used for mulching after his last crop of strawberries is picked. We agree with him in this, provided there are no insects present and the vines are free from fungous diseases.—Editor The Strawberry.

ROBUST STURDY HARDY
They live, grow, make money for you. Got our catalog? If not, send for it today. Millions of plants, trees, bushes — general nursery stock ready. Free catalog tells all. Valuable spraying calendar in it. Order stock now for fall setting.
Peaches
Pears
Apples
California Privet
ARTHUR J. COLLINS
Box 415, Moorestown, N. J.


Dewberries
One of the most profitable crops the small fruit-grower can raise
Now is the time to plan for next spring's planting. Write for information about plants and culture to
R. D. 1, Box 5 T. H. Smallwood, FORT SCOTT, KANSAS

Trees, Plants & Seeds THAT GROW
Best quality. Good bearers. Low prices. Apple 4c; Plum and Cherry 12c; Peach 4c; all budded; Concord Grapes 2c; Forest Tree Seedlings $1 a 1000 up.
Tested seeds very cheap. Freight paid on trees. Catalogue, English or German, free. Write for it today. Address
GERMAN NURSERIES
Carl Sonderegger, Prop.
GERMAN NURSERIES
Box 101 Beatrice, Neb.

850,000 GRAPE VINES
69 Varieties. Also Small Fruits, Trees, &c. Best rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. LEWIS ROESCH, FREDONIA, N.Y.


JOIN OUR COLONY OF NORTHERN FOLKS
WHY spend another winter in the cold North? Our lands are especially adapted to the strawberry, to poultry raising, to truck growing. Markets close by. Cheap rates to Eastern cities. Work for all. Easy terms.
Honest Men Helped to Homes
Free Schools. Free City Lots. Free Fuel
Free from malaria, mosquitoes and epidemical diseases. Grand opening in January, 1907. Special excursion rates to this place. Address
1906 COLONY COMPANY
(WAUGHTEL)
FOLKSTON, GEORGIA

CLEANING OUT THE STRAWBERRY FIELD PREPARATORY TO WINTER

October Work With the Strawberries

OCTOBER may be called the "home-run" month so far as cultural methods in the strawberry field are concerned. A glance at the above picture will indicate the last work to be done in the field before the winter comes on and the plants are put under their winter covering of mulch. Each of these men at work have a sharp-pointed hoe which is used to pick out any stray weeds and blades of grass that still remain in plant rows. As the corn men say, this is the "laying-by" process, and by removing all noxious growths at this season the danger of grass and weeds getting ahead of you during the picking season is greatly lessened. It also improves the appearance of the patch, and prevents the weeds from absorbing the plant food which the vines so much need in building up their fruit-bud system. Many growers neglect this work in the fall, leaving the plants at the mercy of noxious growths, and in the spring wonder why their berries are not so thrifty and so large as those grown by the folk who follow strictly the best cultural methods. This work is easily and cheaply done, and if the soil be moist, the grass and weeds readily may be pulled up by hand. While the grower is doing this he may continue to fill in the vacancies in the rows as suggested in the September issue of The Strawberry.

ONE cause of plant injury during the winter is the settling of water directly on the plants in the rows. Possibly the ground has frozen so that the water cannot leach away, and a sudden and severe freezing spell would result in freezing the water about the crowns and thus, by shutting off all air, smother the plants. This easily may be prevented by making a furrow in the center of the space between the rows, which will make a place for the surplus water to lie until it may be carried off or taken up by the soil. We have followed this method for years and it has saved us from heavy losses. The furrow may be made by putting a small shovel on a furrowing plow or, if the grower has no furrowing plow, but does have a Planet Jr. twelve-tooth or Iron Age cultivator, he may attach a larger shovel at the point occupied by the back tooth on the center beam. This shovel need not be more than three inches wide, and the furrow should be made to a depth of about five inches. This is actually a drain between every two rows of plants. Many of our Southern friends grow their plants on ridges because of the excessive rains and stiff soil of that section. With them, of course, these drain-furrows will be unnecessary.

How to Protect Crowns from Freezing

WE have received many letters from readers saying that their soil was not so rich as they would like to have it, and asking if it would be safe to apply manure as a top-dressing. We would say that this is a good time to do that order of work, and the grower whose plants have not made a satisfactory vegetative growth can take fine stable manure and scatter it lightly along each side of the row. After it has been scattered it will be well to take a small-tooth cultivator and mix the manure with the top surface of the soil. However, if this may not be done, the manure will serve a good purpose if it be left on top of the ground. Of course, the plants would get no plant food from the manure this fall, nor would we have them do so; but the winter rains and snows will leach the plant food from the manure and store it up for the plant's use the following spring, and this will make them fairly jump. If you intend to cultivate the manure into the soil as above suggested, be sure and do the work before making the drainage furrow between the rows.

Top-Dressing With Manure

IN most localities good mulching is a scarce commodity, and as it is such an important feature of successful strawberry production we cannot too strongly emphasize the importance of engaging the mulching now so that you will have it on hand when the time comes to apply it. We have ours all bought, and it amounts to 300 tons. This consists of wheat straw, oat straw, rye straw, old and new straw, besides forty acres of sowed corn. Thus you will see we practice on The Strawberry farm just what we preach. The November issue will deal more at length with the mulching question, going deeply into the reasons for its universal use and the large and varied benefits derived from it. The suggestions here made are for the purpose of getting you into action; to be prepared for the work that must later be done.

Securing the Winter Mulch

DOUBTLESS every reader of The Strawberry has decided upon the location of his field for setting plants in the season of 1907. The land may have been in potatoes or vegetables this season, or it may have been in corn or wheat, or in clover. If the ground has been in a cultivated crop this season, it will be a good plan to break up the ground and sow five pecks of rye to the acre, giving it a light dressing of manure during the winter months. In the spring replow this ground and thoroughly mix manure with the soil by harrowing or disking before setting the plants. If it is clover sod, turn the sod under this fall and cover with manure; then in the spring go over the surface with the disc, mixing the soil and manure thoroughly together. By using the disc instead of

Preparing for 1907 Setting

the breaking plow the sod will be kept on the under side where it will not be in the way in cultivating the strawberry plants. If you are growing cowpeas, you should turn them under also this fall, replowing in the spring as directed above. The cowpeas, when returned to the surface by the replowing in the spring, come into contact with the air, and quickly decompose, filling the soil with rich vegetable mold.

Strawberries in Spare Time

I WOULD like to start in the strawberry business next spring. Do you think I could take care of one acre of strawberries in my spare time? I work in a store from 8 o'clock till 5:30, and I would not like to give up my position till I was sure it would pay. You say not to plant in ground infested with the grub. What I want to know is how to tell if it is, as I have had no experience in that line. Can get a few acres that have been in corn this year, and one other place now pasture land. Would fall plowing be sure to kill the grubs, and could I sow rye after that?

Davenport, Iowa. S. S.

IT is a pleasure to receive such questions as this, because we desire to see every young man seeking to get into an independent business of his own. Everybody can not, and would not care to, embark in the strawberry business, but we can truly say that no other business offers a broader opportunity to the intelligent and enterprising young man or woman.

There is no reason why you cannot give the best of attention to an acre of strawberries during your spare time. We estimate that you will have two hours to work before going to your regular employment in the morning, and that you will have about the same length of time to devote to your patch in the evening. During the morning and evening of one day you can give this acre of plants a thorough cultivating, provided you have a cultivator and horse. If you use a hand cultivator, it will take the spare time for two days to cultivate the acre. This will leave you at least four days each week to hoe among the plants.

It may be necessary for you to hire some little help after the ideal row is formed, because then there will be a great many runners to remove, and this work should not be delayed. Of course, at picking time you will be obliged to hire pickers, when the big crop of berries will justify whatever expenditures may be needful. We predict that you will be pleasantly surprised when you come to count up the cash receipts and net profits from your venture. More than that, we are confident that no doctor will be able to prescribe anything that will be of more benefit to your health than that which you will receive while working among your plants. Every blister the hoe makes on your hands will be repaid a thousand fold.

It is rather difficult to tell whether the soil is infested with grubs. However, when the soil is broken up the grubs are exposed and easily may be seen. One should be careful to avoid using old timothy sod, as the grub is partial to the wiry roots of that grass. We have set plants this year on blue-grass sod never before broken and found it free from the grub, but the ground was broken last fall, which may account for that, as breaking sod at that time brings the grubs to the surface and exposes them to freezing and the attacks of the birds. We should prefer the ground that has been in corn. Break it up this fall, sow rye in the early days of October at the rate of five pecks to the acre. On top of this spread well-decayed manure; the manure may be spread during the winter months. Next spring replow it and work up finely before setting the plants.

STRAWBERRIES suffer from aphides or plant lice unless the grower is careful to dip the roots of the plants in tobacco tea before they are set out. Between the aphides and the ant exists a strange relationship which is thus referred to by Prof. E. D. Sanderson in the Garden Magazine. He says: "In their migrations from plant to plant the lice are often aided by their foster-mothers, the ants, for many species are carefully cared for and guarded by the ever diligent ants. A peculiar sweetish liquid called "honey dew" is secreted by the aphides of which the ants are extremely fond. To secure this they herd the aphides, much as if they were little green cattle. Frequently an ant may be seen tapping an aphid with her antennæ, upon which a drop of the honey dew is exuded and quickly lapped up. Thus the ants are probably entirely responsible for carrying the young aphides, which affect the strawberry roots in Delaware, Maryland, New Jersey and elsewhere, from the foliage down to the roots, and for carrying them from plant to plant, as the plants wither from their injury. The melon louse is similarly carried by the ants from hill to hill. But most remarkabls of all is the case of the corn-root aphis, which lays its eggs in ants' nests in the fall, where they are carefully guarded all winter and in the spring the young aphides are carried by the ants to the roots of their favorite food plants."

How to Paint Your House Cheap

And Have it Look Better, Stay Brighter and Wear Longer Than Any Other Paint Made

Try It Free of Cost

Mr. A. L. Rice, a prominent manufacturer of Adams, N. Y., has solved the paint problem for us all by a new process he has perfected that reduces the cost of painting one-half. This process makes an oil paint which will wear twice as long as any other paint made, and stay fresh and bright for many years after the ordinary mixed paint has faded and peeled. It spreads easier, goes farther, and is backed up by a guarantee to wear for eight years.

The genuine superiority of Doublewear Paint can best be appreciated after a trial, and Mr. Rice has so much confidence in the merit of his product that he will send a liberal sample, together with color card, free to any person intending to paint. Address, A. L. RICE, 606 Main St., Adams, N. Y.

Your Son or Daughter

Can acquire a practical Business Education during the winter months, at a price within your reach, at

THE THREE RIVERS BUSINESS COLLEGE

English branches, Standard Shorthand, Touch Typewriting, Actual Business Bookkeeping. **GIVE THE YOUNG PEOPLE A CHANCE.** It will mean dollars to them in the coming age of keen competition. Ask for catalogue

GEO. L. GRISWOLD,
Dept. B. MANAGER

Just One Word

By D. S. Copeland

A Word may call a hidden smile
From laughter's fountain in the heart;
And Sorrow chase away the while,
Or check the tear prepared to start.

A Word may open windows bright
Where sunny Hope may love to stay;
And store the Heart with blessed light,
That Time can never take away.

A Word may be the golden chain
To link the soul to Heaven above;
Where Pleasure never hears of Pain,
Where all is Peace and perfect Love.

IT is said by Ralph Waldo Trine that we cannot desire anything that we cannot attain to, writes Grace B. Faxon in the New York Magazine. That to have the power to desire gives us the power to attain. Desire awakens the power to do and dare. Now that you have the desire, realize that it is your will that can bring you the attainment of your aspirations. Will to be patient, courageous and firm. Live in the present. Act as though your whole life depended upon your taking advantage of the present moment. A man's environment does not make him great. A great man is not restricted by his environment. He adapts himself to it and lifts himself out of it. He uses his environment as a means of growth.

AN EXAMPLE OF PERFECT CULTIVATION—W. C. LANDIS AND HIS FINE STRAWBERRY PATCH AT SHOALS, IND.

Growing Late Strawberries for Market at the North

By C. F. Nehmer

FROM the first this magazine has urged the importance of cultivating late berries for market, and the opportunity presented for this work in that vast district known as the Lake Superior Region, and comprising the northerly sections of Michigan, Wisconsin and Minnesota. We should add as territory available for this purpose the Dakotas. The story herewith of The Lake Superior Strawberry Farm, of which Daniel Nehmer & Sons are proprietors, is an account of a practical demonstration of the very point for which we have contended, and we publish it with great plensure in the hope that it may inspire many young men, and young women, too, who are seeking an independent livelihood, to study the situation and, perhaps, find in this field an entrance to a successful business career.—Editor The Strawberry.

ANSWERING the query of the editor of The Strawberry regarding our strawberries, let me say that we first commenced growing them eight years ago seven and one-half miles from town, on a homestead. We started with about one-fifth acre, which we planted with a grub hoe, and as we had pretty good success with them we increased our area until we had eight acres in berries there. But, as we had a very rough road to haul over and were too far away from town to handle the fruit to best advantage, we bought forty-five acres within the village limits of Ontonagon, where we are located now, and started planting here in the spring of 1904—about ten acres—off which we picked 1,939 sixteen-quart cases in 1905. We had a bad storm in the fruiting season or we should have had even more. This year we picked about twenty acres and got 4,052 sixteen-quart cases that we have kept account of.

Our principal market has been in the copper country so far, that is, Hancock, Houghton and Calumet. Last year they averaged us about $1.35 per case and this year we sold our surplus crop under contract to Hancock at $1.40 per case straight, f. o. b. Ontonagon, and at Ontonagon and all other small places along the line we received from $1.60 to $1.75 per case, purchaser paying express charges when shipped.

Now about our yields: they could have been much larger if our ground had been worked up properly before planting and drained right (are going to underdrain all of our patch this fall).

Our soil is a sandy loam with clay subsoil from one to six feet down. So far we have used barnyard manure and wood ashes only for fertilizer. We never have used commercial fertilizer, as we did not know what kind was best for our purpose, but would be glad to hear from some one in regard to commercial fertilizer for such land as we have. We have grown all of our berries in single-hedge row so far, but we are thinking of planting the same in solid rows about twelve inches in the row and two feet nine inches between rows next year. It takes a few more plants to start with, but we think it more profitable the first year's picking than the single-hedge row.

We raise our own plants in propagating beds started from plants bought from Kellogg. We always manage to keep cultivator and hoe going all summer.

Last year we put on mulch as soon as it froze up and left it on until we picked, but shall not do so again, as we find those cultivated in the spring do the best. Mulching may be all right in winter in places where snow does not remain, but we think it more profitable to put the labor it takes to put mulch on into holding snow on the ground, as we find snow makes a better mulch in winter than straw. Of course, we mulch with straw and marsh hay in spring after the patch is well cultivated, just before the blossoming season, to keep sand off.

In regard to planting, we find that early spring-set plants do best. We are now working up about eighteen acres to be planted next spring which is in far

better shape than anything we have planted yet.

Ontonagon, Mich.

MESSRS. NEHMER & SONS certainly are pursuing an interesting work and doing it in a manner that insures success. Their way of enriching the soil by the use of barnyard manure and wood ashes will soon put their sandy-loam soil in ideal condition for strawberries, and there is no doubt but their yields, after the ground is drained and well fertilized, will be largely increased.

The method of setting the plants twelve inches apart in the row is very good in view of the fact that they grow their own plants, but this would be decidedly costly for the man who purchases all his plants. The intensive cultural methods this firm pursues calls for our commendation, as nothing else equals a dust mulch in its power to hold moisture in the soil.

However, their method of mulching may be greatly improved by applying the mulch in the early winter after the first freeze, placing it directly on the rows of plants only. Then in the spring, when growth starts, this mulching may be parted, placing one-half on each side of the row, making an opening large enough, merely for the plants to come up through. The advantage of applying the mulch in this manner is in the fact that it will lie close to the ground and the fruit will settle down upon it, while if the mulching is put on in the spring, it will be almost impossible to place the mulching so that the fruit will rest upon the mulching. We have experimented with mulching by applying in the fall and also in the spring, and we find that fall mulching costs much less because it is done at a time when other work is not pressing, and it also serves its purpose better in every way. Applying mulching as above will in no way interfere with spring cultivation, as the mulching will lie directly under the foliage of the plants, leaving about two feet of bare space between rows. And by the way, we heartily agree with the Messrs. Nehmer in the matter of cultivating the fruiting bed. Our own experience in this matter is that fields so cultivated show an increase over those not cultivated of more than twenty per cent, while the increase of fancy fruit and in the general quality of the berries also was quite twenty per cent.

We note that the Nehmers set their plants in the spring. Our views on that point are so well known that they need not be repeated here, except to say that this firm never could have achieved such fine success had they planted at any other season

The Overflow Question-Box

E. G., Cohocton, N. Y. Would like to know the best way to prepare this patch for setting strawberries next spring. It is a light loam soil and level, about one-fourth of an acre. For two years it has had timothy hay and this spring it was well manured with cow and horse manure, and planted to potatoes. Can get plenty manure and wood ashes.

2. Does it do any harm to cut runners and hoe in the morning when there is a heavy dew on the vines?

3. Will runners set in September make good fruit bearers?

4. Competition here is very strong, but with the aid of The Strawberry think I will come out winner yet.

There is no cultivated crop better to grow in advance of strawberries than potatoes. From what you say we judge you have given this ground a liberal dressing of manure, of which the potatoes have taken up the rankest part, leaving it in splendid condition for strawberries. If the manure at your disposal is well decayed, it would be well to break up this piece of ground this fall and sow to rye, spreading the fine manure on the surface over the rye. After the rye and manure are turned under next spring apply fifty bushels of wood ashes to the acre, then harrow this thoroughly into the soil before setting the plants. Ashes contain about thirty per cent of lime, which will aid in making the plant food quickly available, while the potash in the ashes will add to the firmness of the berries and increase their fine color.

2. No.

3. Runners set in September in New York state have too brief a period in which to build up a heavy fruit-bud system. However, they will produce a sufficient quantity to pay. Even in your state it sometimes happens that growing weather continues up to December, and when this is true early September plants will develop size and strength.

4. Competition is the life of any business. The thing to do is to get into a class by yourself which lifts you above ordinary competition. Pack fruit honestly, give full measure, use a good label, pack the berries attractively, and very soon people will call for and insist upon having your brand of fruit.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 65 cents; or given as a premium for 4 yearly subscriptions at 25 cents each.

Our paper is handsomely illustrated, 44 to 80 pages, 25 cents per year. 4 months' trial, 10 cents. **Sample free.** CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE

85 Hogan Block **Syracuse, N. Y.**

T. A. N., Woodstock, Ont. We are troubled very much with the grubs eating off the roots. Is there anything that can be done to destroy them?

2. Tell me the best way to treat or care for a patch the first season?

3. What is meant by a double-hedge row? Do you think it the best?

4. Do you advise cutting off the first runners?

You will find full information concerning treatment of the white grub in the September issue of The Strawberry.

2. The first season the strawberry bed should receive thorough cultivation and hoeing. The cultivator should run close to the row, going about two inches deep, and the work should be done at least every ten days and always cultivate as soon as soil will crumble after a rain. Hoe up close to the plant, breaking every particle of crust, but do not hoe deep enough to loosen the plant.

The double-hedge row means a double row of runner plants. The rows should be about three and a half feet apart, and the mother plants set twenty-four inches apart in the row; allow each mother plant to make enough runner plants to form two continuous rows, laying them in X fashion, the center of the X representing

the mother plant. It is an ideal way of growing fancy berries.

4. Yes, it is best to cut off the first runners, as this will give the mother plant a better chance to get strongly rooted. Of course, if the mother plant has made a very large vegetative growth at the time the first runners set, it will be all right to permit the runners to take root, although each year's added experience leads us to favor more strongly the removal of the first runners.

M. M. P., Alton, N. H. My strawberry plants have done well. It is very dry. Will it injure the fruit buds if not kept watered?

2. Shall I scatter poultry dressing between the rows of my plants this fall and cultivate in the spring?

We judge that your plants have made heavy growth, and the fact that the weather is dry is a great advantage, as the dry weather will check vegetative growth, thus throwing the energy of the plant to the building up of the fruiting system. When there has been a strong vegetative growth we always welcome a dry fall, because where such conditions prevail plants that have properly been cared for during the season are almost sure to produce a big crop of berries the following spring. Do not, therefore, water your plants unless it is so dry they wilt during the heat of the day, and under no circumstances put water on the foliage while the sun is shining. We take it for granted that you have cultivated sufficiently to maintain a dust mulch; if not, you should do so at once.

2. Scatter the poultry droppings very lightly between the rows of plants; do this the latter part of October and run the cultivator through lightly so as to mix the fertilizer with the soil. You may also cultivate it more thoroughly next spring.

H. R. A., Newport, Minn. I write to ask if you can tell me what is the matter with my Gandys. I set the plants early in April on heavy soil, manured with sheep manure, about ten tons to the acre; land otherwise good—equal to the best. April, May and part of June very wet, and it was difficult to keep the ground loose. Since then cultivation has been constant and thorough. Runners are set in narrow-matted row. Most of the plants are making no growth, foliage is scanty and measly looking, leaves curly, ragged and purple. I expected to see large foliage, but it is more scanty than the Splendid or Clyde. I enclose sample of leaves, though they will be so dry as to be of little value to you. Now what is the matter? and is there anything I can do this fall to help them out? Not all are bad; some plants are vigorous and all right.

The leaves from your Gandy plants were very badly dried, but after close inspection we are confident that the plants are affected with mildew, as the Gandy is susceptible to that fungus. Mildew is easily distinguished. Immediately after the plants become affected the leaves curl or roll up as if suffering for moisture. The extremely wet, muggy weather you speak of as being present in the early part of the summer encouraged the mildew also, as any fungi spreads more rapidly under such conditions. We note that you have applied ten tons of sheep manure to the acre. You have been entirely too liberal. Three tons of sheep manure would have been ample, and no doubt this fact has made your plants sick and more readily susceptible to disease. The heavy rain caused rapid leaching of the plant food and the plants fed upon the rankest part of the manure. There is no reason why you should not get a bumper crop of Clydes and Splendids, as both of these varieties delight in fertilizer heavy with nitrogen. The preventive for mildew is to take two pounds of liver of sulphur to forty gallons of water and spray about every ten days. But it now is so late we doubt if it would be of much benefit to spray, unless the Clydes and Splendids show indications of the same trouble. Then it would be a good thing to do to spray at once. Bordeaux mixture also is effective against mildew. But remember that either of the sprays named is only a preventive, and not a cure. Next spring, after you have removed the mulch from your fruiting bed and the new growth starts, give the plants a thorough spraying with Bordeaux mixture, repeating the treatment just before buds open. The reason for recommending Bordeaux mixture for spring spraying is the fact that it is a preventive against all fungi spores, while liver of sulphur is for mildew only.

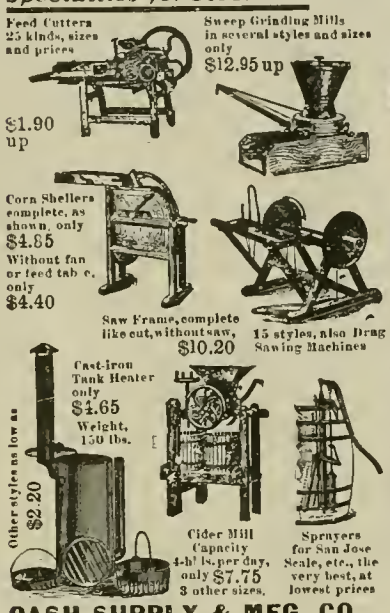
Mrs. J. C. H., Montgomery, Ind. Have but one trouble in cultivating my plants—the moles work under the beds and retard their growth, and sometimes kill the plants. Any information that will lead to the extermination of the pestiferous little animals will be thankfully received.

Moles do but little harm to the strawberry bed except when the weather is exceedingly dry. In fact, it is believed

Wholesale Factory Prices

on all Farm Utensils, Vehicles and Everything Else Needed for the Farm and Home. A Larger Line of Labor and Money Saving Specialties for Stockmen and Others than was ever before shown in any Catalogue. All sold direct from the Factory to You, by the big

KALAMAZOO SUPPLY HOUSE


Feed Cutters
25 kinds, sizes and prices
$1.90 up
Sweep Grinding Mills
in several styles and sizes only
$12.95 up
Corn Shellers
complete, as shown, only
$4.85
Without fan or feed tab e, only
$4.40
Saw Frame, complete like cut, without saw, $10.20
15 styles, also Drag Sawing Machines
Cast-iron Tank Heater only
$4.65
Weight, 150 lbs.
Other styles as low as $2.20
Cider Mill
Capacity 4-bbls. per day, only $7.75
3 other sizes.
Sprayers for San Jose Scale, etc., the very best, at lowest prices

If you have not already sent for our new 400-page catalogue send for it today before you order another thing anywhere for Fall or Winter. It shows a complete line of high grade implements, farm specialties, dairy and poultry goods, vehicles, harness, furniture, stoves and miscellaneous household articles, all accurately illustrated and described and all sold direct from the factory at the very lowest wholesale prices on a binding **guarantee of satisfaction or money refunded.** This catalogue will positively save you money if you are going to buy anything at all in our line of goods, for the famous **KALAMAZOO SUPPLY HOUSE** never takes a back seat for anyone in the matter of high quality and low prices. Operating at comparatively small expense and shipping direct from the factory, we are enabled to sell everything at the very rock-bottom price. If you think perhaps we are exaggerating when we say that, just **compare our goods and prices with the goods and prices of any other mail-order house in the world.** You will know then why we say we are entitled to your patronage. If there is anything you need for the farm or home this Fall or Winter you will find it in our catalogue, in **many kinds and styles and prices,** and all of **guaranteed quality.** Send for this catalogue and we will mail it, postage paid, at once. This does not put you under any obligations. We want you to have the catalogue. Address

CASH SUPPLY & MFG. CO., 665 Lawrence Square, KALAMAZOO, MICH.

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

CHAS. S. CHASE, Agent
624 Chemical Building, ST. LOUIS, MO.

they do more good than harm. Of course, where one burrows under and lifts a plant, the plant will die. But we never have tried to kill them, because they are heavy feeders upon the white grub and other injurious insects. Some people have used poisoned grain in their attempts to exterminate moles, but we never have found anything else so effective as mole traps.

Breeding Double-Crop Plants

DOUBLE-CROPPER plants have done finely this season, owing to the long and unbroken season of hot weather. From many sections of the country come reports of extraordinary yields, some growers securing a sufficient quantity to take to market. One report from Coshocton Ohio, advises us that Daniel Valentine of that place took a crate to market September 8, and received 25 cents a box for the unexpected but none the less delicious berries. That there ever will be large success in developing varieties of persistent and reliable double-croppers, however, is yet a matter of doubt, at least so far as northerly latitudes are concerned. The press of the country has been greatly interested in the experiments of Harlow Rockhill of Grundy county, Iowa, who has been trying for eight years to develop plants with crowns capable of bearing double crops.

In a recent letter Mr. Rockhill says that he is now at work hybridizing varieties showing the strongest tendencies in the desired direction, and is growing seedlings. We quote: "Seeds were sown in window-boxes the first week of February, 1905, and 100 plants was the result. In September and October of the same year 12 of these seedlings fruited, and so far as I am aware these are the first seedlings of the large fruited strawberries that were ever known to fruit the same year the seeds were sown. These plants were transplanted last April together with the runners they had made, and they are proving to be the most persistent fruiters the world has ever known. Up to July 7 I had destroyed three full crops of fruit stems . . . About twelve plants which did not fruit the same year the seed was sown are now producing a heavy second crop of fruit, making about one-fourth of the entire batch of seedling second-croppers."

Mr. Rockhill says there will be no plants of double-crop varieties for sale for another year or two.

THE enthusiastic strawberry grower will compare with much interest the characteristics of the new varieties as they grow and multiply, says a writer in The Fruit Grower. It is wonderful how much individuality there is in each variety. "Doubles" are almost as rare as in the human race. There is endless diversity in size, in leaf, in color, in growth, and in vigor and length of runners. There is the blunt, almost round leaf, and the long narrow one; there is one thin and delicate of texture and another thick and leathery; there is the very dark and the light green leaf; there is the small plant and the big rank grower, maybe a foot high; there is the round compact plant with a dense mass of leaves and the open straggly one with few stems; here is one prolific in runners and there is one almost barren; here are runners with nodes or plant joints twelve inches apart and there are others only three inches; here are runners with thin wiry cords and here are others growing on big sappy cables—and so on in endless diversity. The grower who loves his art will note all these points of difference and learn to know his plants like a shepherd his flock.

Reading for Strawberry Folk

MEMBERS of The Strawberry family will find in the clubbing offers we are making this month (see second cover page) an unusual opportunity to secure a fine fund of high-class reading matter at a cost so low as to bring it within the means of everybody. One cannot read the list without being impressed with its quality, and the various clubbing offers made present a variety of subject matter that comes very near filling the desires of everybody.

Look at those extraordinary offers at a uniform cost to the subscriber of $3.33. Note that with The Strawberry you get The World To-Day, one of the really great publications of the age, filled to the brim with interesting accounts of what is going on in the world about us, and inspiring and helpful suggestions as to what may be done. The American magazine now has upon its staff those famous writers who have been such important factors in reforming many of the crying evils of the day—Ida M. Tarbell, Lincoln Steffens, Ray Stannard Baker, and already takes high place and is to-day one of the greatest of the world's periodicals. The Breeders' Gazette is without question the greatest agricultural weekly in the world, and even those who have no direct connection with live-stock breeding or agriculture in any form find within its pages matter of much interest. To the breeder and the farmer it is invaluable. The Housekeeper is one of the very strong publications devoted to the interests of the home and woman's work. Such a combination as this must appeal to everyone.

Then there is the combination which includes World's Work, one of the noble publications of the time, The Delineator so full of helpful suggestions to womankind in every department of life, and that giant of monthly magazines, McClure's.

NATIONAL TOOL COMPANY

Three Rivers, Mich.

Manufacture a Fine Line of

HARDWARE SPECIALTIES

which are all staple and good sellers

ALSO DO

Contract Manufacturing

In Metal Specialties, of Patents and Inventions for others

Let Us Be Your Factory

You do the selling

NATIONAL TOOL COMPANY, THREE RIVERS, MICHIGAN

And who does not think with pleasure of enjoying the monthly visit of the Review of Reviews, of Woman's Home Companion, and of Success?

What a combination of literary and pictorial delights these three combinations make! Notice the combinations we are offering for $2.95 and for $1.95, and please observe the opportunities given the individual to change these combinations by selecting other publications in their stead. The fruit grower, the poultryman, the apple man, the swine breeder, the home-maker—every interest of the rural home is represented in the splendid publications offered you to select from. We sincerely trust that you will not fail to take advantage of these generous offers.

THE Illinois State Grange recently passed the following resolution: "As practical and independent farmers, we call upon Congress to abolish its petty, annoying and needless practice of broadcasting free and common garden seeds all over the rural districts, and we ask that the control of seed distribution be placed under the Department of Agriculture and limited to experimental work." When the farmers all over the country rise up in protest against the insulting action of Congress, repeated at each succeeding session, and without effect, isn't it time something were done to make the individual members who vote for this "graft" understand that the people mean what they say?

WE take especial pleasure in calling the attention of our readers to the advertisement of the Three Rivers Business College which appears in this issue. This institution has furnished stenographers for The Strawberry and for the R. M. Kellogg Co. and other large establishments here and in different parts of the country and we can testify to the thoroughness and excellence of its work. The school is centrally located, is large and well lighted and ventilated. Living for pupils in Three Rivers is comparatively inexpensive, and the school management, ever anxious to aid pupils to secure an education that will fit them for life's opportunities and duties, helps them to secure employment during spare hours. Write for further information, and if you have a boy or girl whom you would give practical training along business lines, you need not hesitate to send either to this worthy institution.

Who Grew the Prize Strawberries?

By H. E. Stockbridge

SOON after the Hillcrest Grammar School was presented with a flag by the Grand Army Post, there was great increase in the interest taken in the appearance of the school grounds. Flower beds and shade trees appeared. These were followed by the starting of a school garden. Then the school board announced that it would offer two prizes of twenty dollars each; one to the girl who cultivated the most artistic display of flowering plants; and one to the boy who grew the best crop of strawberries.

It seemed at first as though every boy in school had determined to become a grower of prize strawberries. When October arrived, however, and it was time for setting out the plants, the zeal had somewhat diminished. Sixteen boys finally entered the contest, were assigned their plots of ground and received their supplies of plants. The transplanting was undertaken under the direction of Miss Avery, the nature teacher. This transplanting raised a question which was referred to the superintendent. Seth Newton insisted that his father, a successful market gardener, advised matted rows. It was decided, however, that fair competition, with equal numbers of plants necessitated single rows.

Though the real contest could not begin till the opening of the growing season in the spring, the boys enthusiastically gave their plots the care needed for a proper start. The beds were carefully watered and cultivated to encourage rooting. By the time the ground was thoroughly frozen well-developed dark-green plants marked the rows. Then came the December snows. The scene of the strawberry contest disappeared beneath a protecting mantle, to remain until spring sunshine should call the dormant plants to life.

Late April again saw the strawberry beds the center of attraction. Soon the whole community was interested in the contest. It became evident that nearly as many theories of strawberry culture were to be tested as there were boys competing.

Animal fertilizers, mineral fertilizers, fertilizers mixed and separate; level culture, pruning and mulching were eagerly discussed. With the appearance of the first stray blossoms it seemed that Seth Newton would have but one dangerous rival. Leonard Carter now appeared in that character. He was the son of a physician who devoted his leisure to a small farm, where he dared the criticism of neighbors who avowed contempt for his "book-farming" while surreptitiously copying some of his improved methods. The boys carried the differences of principle and practice to the second generation, though the rivalry continued friendly. When Seth good-naturedly chaffed Leonard on book-methods, the latter retorted that brains made an excellent fertilizer. When the son of the doctor insisted on the value of science, the son of the gardener replied: "Practice makes perfect." The boys soon became the leaders of opposing factions, which the superintendent facetiously named the "Heads" and the "Hands," as one or the other of these members was supposed to dominate the methods of the two leaders.

Seth's bed showed the most advanced plants, but the careful individual treatment of the other boy had resulted in remarkably even development. Seth began to show uneasiness. A week of delayed

rains prevented all work in the garden. That week wrought a remarkable transformation in the appearance of Seth's bed. Half the plants were white with bloom, and many stems already bore clusters of tiny berries.

Miss Avery was the first to discover the marked change. "See here, boys," she called, "just look at the bloom, and those little berries on Seth's bed. He must have put steam pipes under his rows."

The boy flushed and stooped over one of the noticeable hills.

"Tell us the trick," begged the superintendent, as he came up with several of the other contestants.

"'Twasn't a trick, only practical sense," retorted the boy. "They've had good cultivation, plenty of fertilizer, and the rain has brought 'em out."

"I didn't mean quite that. I only wanted the secret of your successful practice," answered Mr. Chapin, looking closely at the boy.

"Leonard'll have to sit up nights with his bed now," laughed one of the others.

"Needn't do any watchin' on my account. He'll find that strawberries need more workin' than nursin', I guess."

Though placed at some disadvantage by the sudden spurt of the "Hand" berries, the leader of the "Head" faction was not discouraged. He spent fully as much time as formerly with his crop, which maintained steady and beautifully even growth. As the berries began to set in profusion, Leonard was seen to resort again to the sprinkling pot. The boys who gathered around to enquire into this new treatment found that mere supply of water was not its object. A handful of mineral fertilizer had been added to the contents of the sprinkler. This called forth scornful comment from Seth.

"Givin' 'em spoon-victuals, eh? 'Spose you could improve the rain of Heaven by addin' a little salt?"

"No! But if the fertilizer has to be dissolved before the plant can use it, why not give it in solution ready for use?"

"Ain't there plenty of water already in the ground for all the dissolvin' needed, after all these rains?"

"I don't know, do you? Besides, don't Miss Avery say that plants always drink, and never eat?"

Notwithstanding the apparent confidence of Seth, so close an observer as the superintendent could not fail to notice that his show of satisfaction was artificial. The boy fell into moody spells, quite unlike his natural self. He often stood near his own or Leonard's patch so absorbed in musing as to be oblivious to the comments or actions of his comrades busy on other beds. Once or twice he called on Mr. Chapin at his office, with no apparent reason, and soon withdrew with faltered excuses.

The man concluded that this conduct was simply the result of regret for the result of rivalry which seemed to separate friends, and therefore exerted himself to eliminate personal feeling from the contest.

Meanwhile the fruit grew, blushed and ripened. Every berry was zealously watched by eager contestants and friends, as it turned from green to pink and then reddened. The earliest berries were ripe. Seth would have the first picking.

The whole school gathered one morning to witness the gathering and grading of the berries which Seth proudly picked in the presence of Mr. Chapin and Miss Avery. No other boy could even show a single berry of acceptable ripeness. The weighing of his first fruit, therefore gave Seth a lead of two pounds and three oun-

ces. Two days later he picked more than on the first day. Not till three days later did the committee allow any other contestant to gather fruit. Some half-dozen boys then came forward with approved berries. Leonard's first showing was recorded as one pound and fourteen ounces. Seth's third picking was received at the same time, bringing his record up to seven pounds five ounces ahead of that of the exponent of "Head" methods. This serious disadvantage rather discouraged the enthusiasm of some of Leonard's supporters.

Every bed was now producing fruit. the even growth of Leonard's plants began to tell. He was picking some fruit from nearly every hill. The early start of Seth's crop, however, still gave him considerable advantage. His first plants were already in full bearing, the record of the first week of daily picking showed him six and a half pounds ahead. Then it seemed that his earliest plants had passed their prime; runners began to appear. These he picked off, hoping thereby still to force the strength of the vines into the development of berries.

Commencement day, and the conclusion of the contest, was only a week distant. The next five days showed little relative change in the positions of the leaders. First Seth and then Leonard picked the most fruit. Less than two pounds now separated them. The pickings of the last two days were to be reserved for exhibition and weighing on the final day, with the announcement of the award.

The day long looked forward to came. The result of the contest was still as uncertain as when the plants showed their first blossoms. On a table on the platform reposed the trays of beautiful fruit. The tastefully arranged flowers decorating the table were hardly more beautiful than the pyramids of crimson berries, relieved by masses of their own green leaves.

The regular exercises of the day seemed to pass slowly to the expectant pupils and their friends. Finally Mr. Jenkins advanced to the table, prepared to announce the award. Young Newton had appeared uneasy and nervous. As the chairman came forward the boy lost his feverish flush, and became ashy pale. He sprang from his seat, only to be pulled back by a comrade. Leonard was also pale, but more calm.

"My friends," began the chairman, "It is hardly necessary for me to make any preliminary statement. You are too deeply interested in the award to be interested in any remarks.

"Two of the contestants for the strawberry prize have, by greater skill, diligence, or fortune, outranked their comrades. The real contest has, for weeks, lain between these two. The race has been so close that the judges themselves could not foretell the result.

"On yield of berries, Seth Newton records 138 pounds and seven ounces. Leonard Carter shows 136 pounds and three ounces."

The breathless hush remained unbroken; the result was still in doubt.

"On quality of fruit, Seth receives forty-five points, and Leonard forty-six."

Faint applause was begun by the friends of each boy, but died away as it was realized that the result had not been stated; and was still unknown.

"The score of Seth is ninety-five and of Leonard ninety-four. Seth Newton has, therefore, grown the prize strawberries."

Even the friends of his successful rival cheered the winner who sat apparently oblivious to surroundings. The boys on either side had to fairly push him from his seat before he aroused himself sufficiently to go to the rostrum, in response to the invitation of the chairman. He extended his hand mechanically for the purse offered him. The applause of his friends seemed to call him back to his surroundings. He cast an imploring look toward the array of faces, and turned toward his seat. Then he stopped, turned, and desperately thrust the reward back into the hands of the astonished chairman.

"Take it back!" he cried, "it's not mine; I cheated. It belongs to Leonard. I transplanted potted plants from our forcing-house one rainy night."

The astonishment resulting from this confession was followed by alternate cheers for both boys. The committee held a hasty consultation; then Mr. Jenkins called Leonard to the platform, where he was given the purse at the hand of his repentant rival. The superintendent placed a hand on the shoulder of each boy, and made a final announcement:

"Both boys are winners. Leonard won the strawberry prize; Seth won a greater prize— the mastery of himself."—The Epworth Herald.

Amherst, Mass.

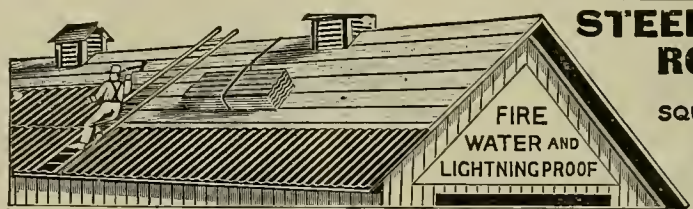
9.95 Buys This Large Handsome Nickel Trimmed Steel Range

without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, $13.95; large, square oven, six cooking holes, body made of cold rolled steel. Duplex grate; burns wood or coal. Handsome nickel trimmings, highly polished.

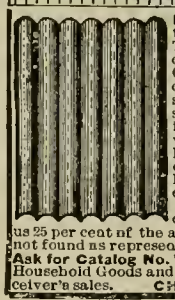
OUR TERMS are the most liberal ever made. You can pay after you receive the range. You can take it into your home, use it 30 days. If you don't find it exactly as represented, the biggest bargain you ever saw, equal to stoves retailed for double our price, return it to us. We will pay freight both ways.

Write Today for our beautifully illustrated **Stove Catalogue No. 1123**, a postal card will do. 75 styles to select from. Don't buy until you get it.

MARVIN SMITH CO., CHICAGO, ILL.



STEEL ROOFING
PER 100 SQUARE FEET
$1.50



Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new, painted red two sides. **$1.50** is our price for our No. 15 grade of Flat Semi-Hardened steel roofing and siding, each sheet 24 inches wide and 24 inches long. Our price on the corrugated, like illustration; sheets 22 inches wide x 24 inches long **$1.60.** At 25 cents per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, **per square $2.00.** Fine Steel Beaded Ceiling, **per square $2.00.** Can also furnish standing seam or "V" crimped Roofing. **WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO** except Oklahoma, Texas and Indian Territory. Quotations to other points on application.

Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this advertisement C. O. D., with privilege of examination if you will send us 25 per cent of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit. **Ask for Catalog No. W-733.** Lowest prices on Roofing, Eve Trough, Wire, Pipe, Fencing, Plumbings Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales. **CHICAGO HOUSE WRECKING CO., 35TH & IRON STREETS, CHICAGO**

The Land of Big Berries

ARKANSAS and TEXAS

Choice locations along the

IRON MOUNTAIN ROUTE

Full information Free. Write to

H. D. ARMSTRONG, T. P. A. — 88 Griswold Street, DETROIT, MICH.

ELLIS FARNSWORTH, D. P. A. — 186 Clark Street, CHICAGO, ILL.

N. C. TOWNSEND, G. P. & T. A. — ST. LOUIS, MO.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

AUTUMN is an important season for the strawberry grower, and the instructor urges every member of this school to look after the details of his work with especial care at this time, as the season is a trying one in all lines of plant life. Some of our friends wonder why their plants are not thriving as well as usual in a season that has been peculiarly hard on vegetable life of all sorts, except cereals. The peach crop, which gave promise of extraordinary yields in the spring and early summer, has fallen very low as compared with other seasons, and so it is with other orchard and garden crops, while flowering plants and foliage have shrunk and died under the influences of the long hot, dry weather which has marked this season over a very large portion of the country.

Under such conditions it requires work to bring the plants through and keep them up to a high standard of strength and productive power. But work will do it. It is gratifying to know that the old-timers join in saying that this is the hardest year in three decades of experience; for we can't complain if nature does give the strawberry folk a severe jolt once in a generation. The fellows who grow apples, peaches and other fruits consider themselves fortunate if they have a run of five good seasons. And we are especially pleased to hear from so many members that they are succeeding despite all discouragements; and they are kind enough to say that The Strawberry instruction and advice lies at the bottom of their success. Let us help each other to even greater things, for by working and studying together we shall be able to accomplish wonders.

I. J. I., South Attleboro, Mass. Have just moved on a farm and being interested in poultry, thought I would start in the strawberry business also and would like to ask a few questions: Would hen manure be all right to use as a fertilizer; when would I have to put it on and how much?

2. About what time in the fall will I have to plow the land?

We note that you are interested in poultry and that you purpose to go into the growing of strawberries. This will make a valuable addition to your poultry business. We have many customers growing strawberries in connection with chickens, and they are making money, too.

1. There is nothing better than chicken droppings for strawberries. You should compost them with an equal amount of soil. This compost should be spread on top of the ground after it has been thoroughly broken up, and then thoroughly mixed with the soil before plants are set. This is a very strong fertilizer and should be applied thinly.

2. The plowing of your land should be done either the latter part of September or the first of October. If you could plow in September and then sow about five pecks of rye to the acre, the rye would help hold the plant food until spring. When this is done you could scatter the chicken droppings on top of the rye during the winter months.

J. J. B., Wirt, Ind. When my berries first began putting out runners, I thought I would allow them to make what they would and use the extra runners this fall in resetting one patch that was almost entirely lost last spring, as a result of early drouth and late setting. But the extremely dry hot weather has continued since April until just recently. This being true, the runners have not rooted sufficiently, I fear, to risk setting this fall. So I have almost concluded to use the Planet Jr. disc and cut off a large portion of the runners, thus narrowing the rows to a narrow-matted row. My intentions were to follow your instructions, using only single and double hedge rows. But the weather remains yet very warm, and I fear to remove so many runners at once would injure the mother plants, as they look somewhat worsted from the drouth and having to support so many runners. I fear I have made a serious mistake in allowing the mother plants to put out so many runners, but kept thinking all the time it would soon rain; then they would take root, and I would then clip the runner plants from the mother plants, thus relieving the mother plant. I would appreciate your advice very much as touching the method I should use in the above. I am surprised at the vigor of the plants, considering the drouth, though I have kept a fine dust mulch all summer.

It is all right for you to allow the plants to make a large number of runners so that you may secure enough sets to fill in the vacancies in your other bed of plants. The continued drought undoubtedly is the cause of so many of your plants having failed to grow. The resetting of these plants should be done the latter part of September and the work should be done immediately after a rain, when the soil is full of moisture. In taking up the plants leave quite a little soil on the roots, as this will prevent their being checked in growth. If you decide to remove the runner plants now, it will not injure the mother plant, provided you cut them off with shears or a knife. Cultivating once each week assists wonderfully in carrying plants through a dry season, and we are glad to know you have maintained a dust mulch. This is why your plants display so much vigor after so trying an experience.

M. A., Driscoll, N. D. When is the best time to cut the leaves and stems off strawberry vines—fall or spring?

2. Are coffee grounds food for strawberry vines? If so, when should they be used?

In regard to removing the foliage from your strawberry plants: It is unnecessary to do this save after the first crop is picked; in your locality this would be from the 5th to the 10th of July. The reason we urge growers to mow the vines off after the fruiting season and burn the bed over is for the purpose of destroying insects and fungous spores.

2. There is no value to coffee grounds. However, we do not think they would do the plants any injury.

C. O., Plant City, Fla. On page 182 September issue of The Strawberry I see A. L. E., Birmingham, Ala., asks about growing berries after onions. Now I had an experience last spring. I received some plants late in March that I had ordered for earlier delivery and when they came I had no ground ready for them, and as it was late I did not think they would do much. But I had some land in onions and I planted the strawberries between every other row of onions. They did not do much as long as the onions were in the ground, but just as soon as I got the onions off and worked them out you ought to have seen them grow. So I think if friend A. L. E. will plant his onion rows so he can plant every other row with berries, he can get his crop of onions and also his berry patch.

2. I see that you advise the use of muriate of potash for berries. Now this is something new to me, as all the authorities I have seen advise the use of sulfate of potash for fruits and vegetables. But the muriate is a good deal cheaper, and if it will give as good results as the sulfate I would like to know it.

We are pleased to have your experience with strawberries grown in the onion bed, as many of our readers have small gardens and will find in your account matter of large interest. It will doubtless encourage a more profitable way of

handling the small area at their command.

2. Either muriate or sulfate of potash is good for strawberries, but as a rule it is not necessary to use so much sulfate as muriate, therefore the cost of either would be about the same. It will be well to experiment by trying muriate on some plants and sulfate on others, which will inform you as to the better one to use on your soil.

R. S., Hammond, Wis. Would chaff from flax straw that has rotted for seven years be a good fertilizer for strawberries on a clay soil? It seems to need something to lighten it up—slopes to the south.

2. Which varieties of late strawberries would be best for the above soil?

The chaff from your flax straw will make an ideal dressing for your clay soil, as you say it is perfectly decayed. What clay soil needs is a sufficient amount of humus to make it spongy so that it will better hold moisture, and humus is made from decayed vegetation. The straw also will make the soil lighter and more easily handled. We believe you would get better results by breaking the ground this fall and then covering it well with the decayed chaff, and in the spring work it thoroughly into the soil. A crop of cowpeas is a wonderful loosener of clay soils and one of the best humus makers.

2. Clay soil when properly prepared will grow almost any of the standard varieties to perfection. For late varieties we would suggest Dornan, Gandy, Pride of Michigan and Mark Hanna. We should also recommend trying a few Stevens' Late Champion and the New Home.

L. W., Talent, Ore. My soil is heavy, black and sticky. When plowed in the fall and left to the action of the frost and air it works up mellow in the spring; but when irrigated runs together and becomes hard. Would it be benefited by putting on gravelly sand and manure before plowing?

We would not recommend the application of any gravel or sand, but a large amount of coarse stable manure, turned under in the fall, will aid greatly to loosen your soil, because in the spring you will replow this soil, and this will bring the manure back to the surface. By working it in lightly on the top it will be of much benefit in correcting the trouble to which you refer.

N. A. S., Boston; Mass. In July someone kindly mulched my little strawberry patch with old straw, weeds and lawn clippings. Had I better leave the mulching on the ground or remove it?

As the mulch has been on all summer it will do no harm to let it remain until after the berries are picked next season, but the best mulching during the summer season is the dust mulch, which is made by repeated cultivations and hoeings. After the first freeze, a more thorough mulching should be given the plants, so that the plants themselves will be covered.

M. R., Eastport, L. I. Would I better cut off the leaves which have reddish brown spots? Some of them are nearly covered. The center leaves are still fresh and green.

2. I have kept the runners cut off the plants set this spring until now, and they still form. Will it do to let them run now and set, or will it injure the crop of berries next summer?

It is unnecessary to cut off the leaves which are affected with rust. Of course, it would be somewhat of a prevention against this fungi spreading to the healthy foliage. If you could spray these plants with Bordeaux mixture at first sight of this trouble and repeat it every ten days for several weeks, it could be completely controlled. Unless the leaves are very badly affected, we hardly believe that it will do any serious injury.

2. It will be all right for you to allow your runners to set until the middle of September; however, it would have been better if you had allowed these runners to form earlier.

W. W. W., Berwick, Pa. Can I raise two crops of plants (first and second year) from my propagating bed without deterioration to offspring, if I take No. 1 care of parent plants?

2. What is the value of pigeon droppings for fertilizing strawberries?

3. I have a compost heap made of the following: one-half leaf-mold, one-fourth each of cow and horse manure. Can you recommend this as of special value for strawberries?

4. Could I use sawdust or tan-bark between rows for pickers to walk on, removing same when season is over? Sawdust is old and partly decomposed.

It always is best to grow only one crop of plants from a propagating bed, then you are sure to have the very best developed plants. Even though you do take the best of care of the mother plants there is danger of the second crop of plants being weak and unsatisfactory. And when you propagate your own plants it is best to dig up the entire row, discarding the mother plants and any weaklings.

2. Pigeon-droppings make a very valuable fertilizer for strawberries. If combined with an equal amount of soil and left for several weeks and given a thorough "mixing" every few days, their value will be increased greatly.

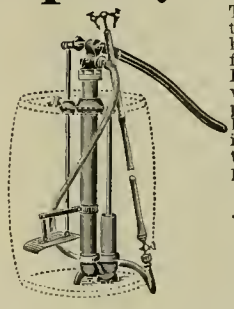
3. Your compost is well made up and it will prove a fine fertilizer. Glad to know that you are composting your manures. This is one way to get the

Page Poultry Fence

Needs no top or bottom boards. Is made of large wire—the smallest being No. 14. All horizontals are high carbon, double strength, spring steel wire, heavily galvanized to prevent rusting. Expansion and contraction are provided for—all the horizontals being coiled coil spring wire. It's easily adjustable to hilly surfaces—the coil does it. Stands up stiff, does not sag, bag or buckle. Costs less erected than common nettings. Looks better. Lasts *much* longer. Height, 4, 5 or 6 feet. If you need Poultry Fence, *write us.*

PAGE WOVEN WIRE FENCE CO.
Box 102, Adrian, Mich.

Spray or Surrender



That is the ultimatum that insects and fungi have served on every fruit grower of America If you do not heed the warning you will not get profits from your orchard Every man who sprays intelligently at the proper time finds it the most profitable operation on the farm

Send for illustrated catalog of the Eclipse Spray Pumps and Outfits

MORRILL & MORLEY,
Benton Harbor. Mich.

A Cracker-Jack Idea

YOU have the fresh popcorn aand other necessary material, and I have the formula for making the most crisp, delicious and healthful Cracker-Jack on earth. Now, what I propose to do is to send you my formula with complete instructions for making **Potter's Famous Cracker-Jack** if you will send me 25 cents. Why pay a big price for a little bag of stale cracker-jack when you can learn how to make my famous brand at so small a cost? Send me 25c in silver or 2c stamps and I will forward my formula and full information by return mail. It will tell you how to make your own cracker-jack, and earn big money.

Clark Potter, The Cracker-Jack Man, Three Rivers, Mich.
We vouch for Mr. Potter.—KELLOGG PUBLISHING CO.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and **SPECIAL OFFER TO YOU.**

R. R. FISHER, Pub., Box , Freeport, Ill.

best results and make them go farthest.

4. We do not like to use sawdust as a mulching as it tends to sour the ground. As your sawdust is well decayed and you purpose removing it after berries are picked, the danger of souring would be slight, but it would be a big job to remove the sawdust, and a large amount of it would be tramped into the soil. If you can get anything else, do not use either sawdust or tanbark.

E. D. J., Fredericktown, Ohio. Do you think to grow strawberries all in the single-hedge row system would be as good as to have part in double-hedge system? I am growing both ways this year, but like the single row the best, because I think it the easiest way to cultivate. What do you think about it? And what varieties would you recommend to grow that way in this locality? How far apart would you put the rows?

As you appear to get better results from the single-hedge row, and to like this system better than any other, there is no reason why you should not follow it with all varieties. All varieties grow well in single-hedge row, but some varieties will not do well in double-hedge or narrow-matted row, especially those varieties which develop an exceedingly heavy foliage. There is no question that the single-hedge row is the simplest and easiest method to follow. It makes a little more work to keep the runners off, but when this is properly done the results are so large that one is well repaid for the extra work. The distance apart to set them will depend somewhat upon the varieties, those making a few runners only should be set twenty-four inches apart, while those which make runners abundantly should be set thirty inches apart in the row. One advantage of the single-hedge system is that you may set the rows closer together than under any other system. Three feet will afford ample space between the rows, and, if land is limited, thirty inches will do. Almost any of the old standard varieties will do well in the single-hedge system. In your state the Excelsior, Warfield, Senator Dunlap, Glen Mary, Dornan and Sample give ample returns.

W. D. C., St. George, S. C. How may I tell a bisexual from a pistillate plant?

2. I have one row of Texas (B) beside a row of Aroma (B). When I get berries next season what will they be? And will the plants taken up be a combination of the two varieties, or do the plants in each row retain the characteristics of the mother plant?

There really is no way to tell a bisexual from a pistillate plant so far as the plants themselves are concerned. But it is easy to detect the difference after the bloom opens, as the bisexual flower has both pistil and anthers. There is a cone in the center of the flower which is surrounded by anthers. The latter extend beyond the cone or pistil, while the pistillate variety has only the cone, containing the pistils. The bisexual flower always is larger than the flower of the pistillate.

2. The fact that you have set two bisexuals side by side will not change the characteristics of either fruit or plant. Keep the runners of each row from running into each other, and then the particular variety will bear the same characteristics as the mother plant and will, of course, bear the same name.

J. J. H., Bellefontaine, Ohio. What kind of an idea would it be to plow under a crop of cow peas in the fall and then turn them up again in the spring for a strawberry bed? Would there be time after strawberries are picked to sow a crop of peas and have them for fertilizer as stated above?

In an ordinary season you may sow cowpeas after berries have been picked and get quite a large growth of vines, and it will be well to turn the peas under in the fall, provided you sow about five pecks of rye to the acre after the cowpeas are turned under. The rye will act as a cover crop, protecting the ground from puddling during the winter rains and snow. This ground should be rebroken in the spring. This will thoroughly mix the vines up with the soil and put it in an ideal condition for plants.

S. E. A., East Aurora, N. Y. I have taken the best of care of my berry plants and they are a picture—big healthy plants forming a double-hedge row from sixteen to eighteen inches wide, with an open space of about twenty inches between the rows. Now my land washes some, and it occurred to me that I could sow the whole piece to oats about September 15 and they would help to mulch and stop its washing. The freezing will kill them so there will not be anything left of the oats next spring. I shall cover the plants with bean straw and buckwheat straw. Will you kindly give me your opinion?

It will be wise for you to sow oats between the rows of your strawberry plants about the middle of September, as we note from your letter that these plants have made a very large vegetative growth. The oats will not do any great injury and it is quite likely that they will prevent the ground from washing so badly during the rainy season. We also would suggest that you apply mulching quite heavily where the ground washes badly. The bean straw and buckwheat straw should make ideal mulching. As a rule we

"A Kalamazoo Direct to You"

Radiant Base Burner High Grade Parlor Heater for Hard Coal

"Kalamazoos" are fuel savers.—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality—
They are easily operated and quickly set up and made ready for business—
Buy from the actual manufacturer—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

Oak Stove Heater For all kinds of fuel

We Pay the Freight

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo at any price.
We want to show you **how** and **why** you save from 20% to 40% in buying direct from our factory.
If you think $5, or $10, or $40 worth saving

All Kalamazoo cook stoves and ranges are fitted with patent oven Thermometer which makes baking and roasting easy.

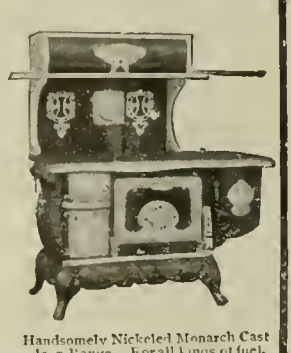
All Kalamazoo stoves and ranges are guaranteed under a binding, legal and thoroughly responsible $20,000 bond to be exactly as represented.
All stoves blacked polished and ready for immediate use when you receive them.
You won't need the help of an expert to set them up in your home.

Royal Steel Range For all kinds of fuel.

SEND POSTAL FOR CATALOGUE NO. 348

Examine our complete line of stoves and ranges for all kinds of fuel; note the high quality; compare our prices with others and then decide to buy from actual manufacturers and save all middlemen's profits.
Catalog shows 207 styles and sizes for all kinds of fuel. Write now.
Sold on 360 Days Approval Test.

Kalamazoo Stove Co.
Manufacturers,
Kalamazoo, Mich.



Handsomely Nickeled Monarch Cast Iron Range. For all kinds of fuel.

would not advise the sowing of oats in the strawberry bed, but in your case it will undoubtedly serve some purpose.

C. D., Hull, Iowa. I would like to ask you what to do with my strawberry patch. After the crop was off I plowed the rows down to about 8x12 inches wide, first mowing closely, then raking off after plowing I harrowed thoroughly, took out all weeds, and since I have been going through them with the Planet Jr., once a week, every time the same way. Now the runners are beginning to run wild. Shall I cut them off or keep them pushed to one side along the edges of rows? I kept them in this way last year and they got awful thick.

So far you have been doing the work of preparing your strawberry beds for second crop properly, but as the runners are forming quite abundantly, we would suggest that you keep a large percentage of them from taking root. This may be done by pulling them off when hoeing and cultivating. If you keep pushing these runners into the row, the plants will form so thickly that it will make berries small next season. The plants should not set closer than six or eight inches, and by keeping them thinned this way will help you to secure fancy berries.

E. W. N., Colorado Springs, Colo. This altitude is nearly 6,000 feet. Is this too high to go into berry growing as a business? Would it be better to buy some land in some of the state's fruit sections? I intend to raise squabs, bees and berries, and probably some other fruits. I prefer this city as a home and should like my business as near home as possible. What do you know of berry growing as a business in or near Colorado Springs?

Strawberry plants are very hardy and they will thrive and produce good crops of berries wherever vegetables will grow. We are sure that you will find that strawberries, squabs and bees will make a good combination. Many readers of The Strawberry succeed well in high altitudes in Colorado; we know of no reason why you should not succeed in Colorado Springs.

J. T. P., Crescent, Okla. Having purchased land at Artesia, New Mexico, and desiring to grow strawberries there, I ask your advice. The altitude is about 300 feet; rainfall, fifteen inches; artesian water at temperature of about 70 degrees Fahr. for irrigation. Immense crops of alfalfa and apples are grown in the Pecos Valley. Strawberries seem to do poorly. The new growths of leaves are white or very light, caused (I think) by alkali in the soil. Can this soil be made to produce heavy crops of strawberries?

2. How prepare it?

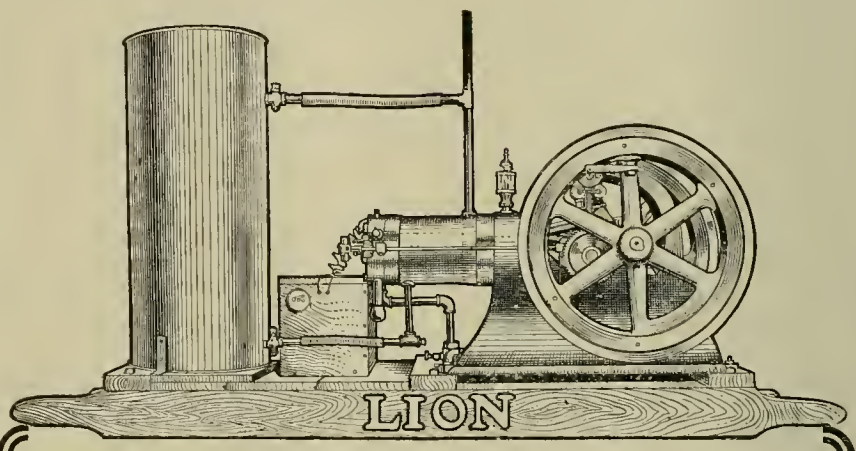
3. What varieties would do best?

I read *all* of The Strawberry.

The soil in some parts of New Mexico does contain quite a little alkali. Where only a little of this exists strawberries successfully may be grown. The fact that alfalfa and apples grow luxuriantly on your soil is evidence that strawberries also will thrive there. We note what you say about the leaves of the strawberry plants being white, or a pale yellow. This might be on account of a deficiency of potash. If this is true, a light dressing of wood ashes will assist in getting a darker foliage.

2. The best way to prepare this soil would be to break it up this fall and scatter a light dressing of stable manure on top of the ground. Then mix this thoroughly with the soil, and let it remain until next spring, when you should again work the soil and manure thoroughly together and get it ready for setting the the plants.

3. As to varieties for New Mexico, we generally recommend Excelsior, Texas, Crescent, Dunlap, Brandywine and Mark Hanna. These varieties are all



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

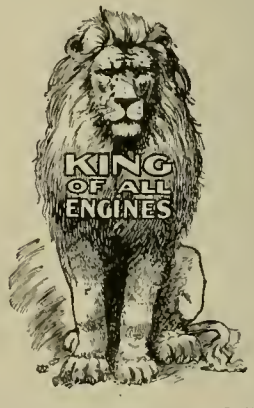
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

LYONS ENGINE COMPANY, Lyons, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in The Strawberry. Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

LYONS ENGINE COMPANY, Lyons, Michigan.

deep rooters and will stand a lot of dry, hot weather. And all are splendid fruiters as well.

J. B. H., Stoutsville, Ohio. I have a piece of ground which is partly a black loam, the balance being a mixture of clay and sand, the clay predominating. This land has been in onions for two seasons. I have a part of it now growing to cowpeas, which I shall turn under just before frost. Will sow balance of my ground to rye. What I want to know is: Would you advise me to plow my rye under late this fall or wait until next spring? I want to put some stable manure on the ground during the winter months.

The purpose served by rye is to take up the plant food which is bound to be leached out by winter rains and snows. Just as soon as the ground thaws during the winter the roots of the rye begin absorbing the available plant food, holding it in reserve for the strawberry plants during the following spring. The rye also serves a valuable purpose in preventing washing and puddling of the soil. Spread the manure on top of the rye, and it will find its way up through the manure.

W. H. B., LaBelle, Mo. I have a plot of ground which is in garden truck this year and I want to set it to strawberries next spring if nothing happens. I had part of the ground in strawberries about three or four years ago, and this year is the second crop of garden truck since I had strawberries on it It had a tolerably heavy coat of stable manure on it this spring and I put in corn, potatoes, beans, tomatoes and truck, and these are growing on the ground now. I want to plow the ground this fall. Would you advise putting another thin coat of manure on it this fall before it is plowed?

2. Would you advise using commercial fertilizers on the ground next spring? Would you advise replowing the ground in the spring but not as deep as this fall, or work it down as it is left this fall? I have asked two or three travelling salesmen for wholesale drug companies about nitrate of potash, and they did not seem to know anything about it. So I would like to know where I can get it.

I am always anxious for each number of The Strawberry to arrive, as there are always some very instructive and interesting articles in each issue. I don't see how anyone who grows strawberries can do without the paper.

The fact that vegetables have been grown upon the ground is evidence of its good condition. Give it a light coat of manure this fall; then turn it under about four inches deep. If this work can be done early enough so that rye still may be sown and grown, we should do so. Next spring plow this piece of ground, going about six or seven inches deep, and as the manure had been turned under but four inches, breaking it seven inches deep in the spring will leave it nearly in the center of the broken earth, and this will make it very easy to mix it into the soil with harrow or disc.

2. You doubtless meant nitrate of soda rather than nitrate of potash. The former may be obtained from any fertilizer company. Write Swift & Co., Chicago; Ill., mentioning The Strawberry, and you will receive full information concerning it and all other fertilizers particularly adapted to the strawberry. Barnyard manure is the best thing for strawberries, but well-balanced commercial fertilizers will serve you well if the stable manure is not available.

S. B. R.. Ellott, Iowa. I enclose herewith a sample of the leaves on my strawberry bed. This is the third time they have gone the way this sample has this season. I have sprayed them with the mixture of lime and Paris green four times; for a while each time they seemed to do well, but would get as this sample in from two weeks to a month afterwards. We have had an exceedingly dry August, the ground is very rich, and my wife says that I have killed them by too much cultivation. There are no weeds in sight anywhere about the bed. I know that it is not the fault of the original plants, for every plant lived till a mole disturbed a few and then this trouble came, or something similar, twice before. I did find quite a good many webs among the plants prior to the dry hot August, but none since the last spray. I have kept the runners as directed. Three times since the dry hot weather of August we have given them a good wetting down with the hose. Twice we have used the suds from the Monday wash to help them to moisture. I shall be very much obliged if you can tell me what to do.

The specimen leaves indicate that your plants are affected with mildew and rust. We note that you have sprayed them with Paris green and lime. This would have no effect on the rust or mildew. This is a fungi and can be controlled only by the use of Bordeaux mixture, which is made by dissolving four pounds of blue vitriol in twenty gallons of water, and four pounds of lump lime slaked in three gallons of hot water. Then add enough water to the lime to make twenty gallons. After this has thoroughly cooled, combine the lime solution with the blue vitriol which will make forty gallons in all. Of course, this will not cure any leaves which are affected, but it will prevent the healthy leaves from being attacked by this fungi. It is so late now that we doubt if the spraying would do much good, and unless your plants are very badly affected, we would not spray until next spring. Then the first spraying could be made just as growth starts, spraying again before the buds open. It would be rather difficult to give strawberry plants too much cultivation. We cultivate about five times a month and hoe about twice a month. We note that you have been watering these plants from the hydrant. It is all right to do this in the evening, but do not sprinkle the plants while the sun is shining hot, as this only encourages the fungi spores to spread.

C. E. B., West Salem, Ohio. I have a two-acre piece of ground that I wish to put to strawberries next spring. I have it in corn now, but it is so full of the white grub that I am afraid they will take all the plants. They worked on the corn badly. Could you give me a plan to treat that ground so as to get rid of them? Would it be a good plan to plow the ground this fall?

As your ground is infested with white grubs, we urge you to break it up this fall and let the ground remain in a rough condition during the winter months. This will expose the grubs to freezing and also to the attacks of birds. If you have pigs and chickens and your piece of ground is fenced so that you can turn them in on it, they will get most of the grubs by rooting and scratching. Either pigs or chickens will leave corn to eat grubs. This treatment should free your soil from grubs.

WE HAVE A LARGE NURSERY STOCK

Special inducements to those dealing direct. Agents wanted.

J. WRAGG & SONS CO. WAUKEE, IOWA

Make More Money on Fruit Crops

Everyone who grows fruit, whether a large commercial grower, or one who has only a few fruit trees, a berry patch or a garden, should be interested in knowing how to get the most profit from his crops.

THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

is the only magazine in America which is devoted exclusively to the interests of those who grow fruit. It is handsomely illustrated, and contains from 36 to 76 pages each month. It tells all about fruit of all kinds—and nothing but fruit—how to market, how to pack, cultivate, spray, prune, how to MAKE MORE MONEY from your crops. Sample copy will be sent free. Regular price is a dollar a year, and each subscriber is entitled to a choice of any one of our series of ten "Brother Jonathan" Fruit Books—the best in existence.

Three Months Free

We are so confident The Fruit-Grower will please you that we will send it to you three months absolutely free if you will mention paper in which you saw this advertisement. If, after three months, you like the paper, we will make you a special offer for twelve months more. If you don't like it, notify us and we will take your name off the list. The three months will cost you nothing. We offer Cash Prizes for new subscribers—write for particulars. Write your name and address in blanks below and mail to Fruit-Grower Co., Box B, St. Joseph, Mo.

FRUIT-GROWER CO., St. Joseph, Mo.

I accept your FREE three month's trial offer. At end of three months I will either pay for a year's subscription or notify you to stop paper. In either event there is to be NO charge for the three month's trial.

Name_____

Route or P. O. Box Number_____

Town_____ State_____

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN Western Representative
315 Dearborn St., Chicago, Ill.

S. E. LEITH Eastern Representative
150 Nassau St., New York City

Address Communications and make all Remittances to The Kellogg Publishing Co., Three Rivers, Mich.

SUBSCRIPTION PRICE:

United States and Canada - - $1.00
Foreign - - - - - - - 1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

OCTOBER, 1906

THE cover for this issue of The Strawberry is from a photograph of the strawberry patch of Rufus Brogden of Jamestown, N. Y. In the note accompanying the photograph, Mr. Brogden says: "How easy it is to raise good berries under The Strawberry system! I had no previous experience in growing anything when I moved to my place of two acres a year ago last spring, but I plowed up a patch of grass land and set out plants, following your directions carefully as to planting and cultivation. I am more than pleased with results. In my district the season has been a poor one for strawberries because of the drought, many growers realizing only half a crop, and small berries at that. I therefore consider myself fortunate in getting more than six hundred quarts of big, fine A No. 1 berries from my 500 Senator Dunlap plants, for which I secured a good price in the open market. I attribute my success to the good strong plants I set out, and the close and thorough cultivation I gave them made them strong enough to withstand the drought. I intend to set out many more plants next spring. I feel confident that by following The Strawberry methods any amateur grower can do fully as well as I have done."

THE next annual meeting of the Michigan State Horticultural Society will be held at Benton Harbor in December, and the people of that city are arranging to entertain their visitors in right royal fashion. Benton Harbor is the center and market for one of the great fruit districts of the country, and as such deserves the honor thus conferred upon her. State societies of horticulture are among the impelling forces of progress, and we shall hope to see the year notable for the high character of work done, not only at Benton Harbor, but by every state association in the Union.

AND Michigan is to have the 1907 meeting of the American Association of Nurserymen, that splendid organization that is doing so much for horticultural advance all along the line. It has been decided to hold the meeting at Detroit in June, and as that city is one of the most delightful and beautiful convention towns on the continent, the nurserymen are assured in advance of a successful meeting and a charming time. The organization of this association is now thoroughly perfected, and with its strong committees and headed by President Orlando Harrison, its growth in size and increasing importance is assured.

MONTGOMERY WARD & CO. make their initial appearance in the advertising columns of The Strawberry this month, and we are sure our readers will welcome them with pleasure. They come with an unusual offer for them, as this great house is not accustomed to using the word "free" as an inducement to secure public interest, but when they do use that word everybody knows that it means just what it says and refers to something of real value, too. Montgomery Ward & Co. is the pioneer mail-order house, and one large manufacturer once remarked to the editor of The Strawberry that it was responsible more than any other business house in the country for the universal confidence that made the magnitude to which the mail-order business had grown possible. That is, the good goods, the honest methods that invariably characterized Montgomery Ward & Co's. transactions had developed confidence and led people to send their money thousands of miles without ever seeing the article desired, in complete assurance that absolute good faith would be observed. Knowing as we do how many of our readers file The Strawberry and will not cut out the coupon in the Montgomery Ward & Co. advertisement, we trust that none will write that house without duly mentioning this magazine. Please do not fail to do this.

ONE of the most unique business enterprises in the world is the Chicago House-Wrecking Co., and the work it does is of the most beneficent order. The materials of discarded buildings are so scientifically handled by this company as to reduce wastage to the minimum, while the figures at which this company purchases these buildinge enable them to sell these materials at the lowest possible prices. The biggest "deal" of this kind ever made in history was the purchase outright by this great company of the buildings of the Louisiana Purchase Exposition at St. Louis. The company's check for $500,000 was handed over to the management of the exposition and the work of dismantling begun. It is readily seen how such a concern can sell building material at very low prices. It will pay you to get their catalogue No. W-733 and study it in the light of your needs. Address Chicago House Wrecking Co., 35th and Iron Sts. Chicago.

CATALOGUE NO. 348 of the Kalamazoo Stove Co. is just received, and it is a beautiful piece of typography as well as a practical help to every housekeeper in the land. The book shows one the scientific way in which to run a stove; how to get the largest amount of benefit from a stove at the minimum consumption of fuel. There are lots of things in the experience of a scientific stove maker not dreamed of in the philosophy of the non-technical individual, and these experiences are an important part of the literature put out by the Kalamazoo people. We can testify to the value both of Kalamazoo heaters and ranges and of the catalogue, and advise every reader to send to the Kalamazoo Stove Co., Kalamazoo, Mich., and secure a catalogue at this time and thus be fortified against winter's chilling onslaughts.

ANOTHER Kalamazoo concern that will be glad to make the acquaintance of Strawberry folks—and we are sure the acquaintance will prove mutually pleasant and profitable—is the Phelps & Bigelow Windmill Co., of that enterprising city. A good wind mill is one of the greatest economies of the farm—no fuel, no labor, no expensive machinery. Put up your mill and nature does the rest, pumping your water for you, and performing many a service that otherwise would require a large expenditure of cash or muscle. Get acquainted with the Phelps & Bigelow folks—write them now.

STARK BROS. have been at it for eighty-two years, but that company is as young and as up to date as if it had begun doing things only yesterday. When you hear of the latest and best discovery along the fruit line just stop to ask and you will be almost sure to learn that it comes from Stark's. For instance, take the Banner grape which this company is now introducing to the public, samples of which have been sent to The Strawberry for inspection. Great big, sweet fellows they are, with a flavor that exactly meets your ideas of what a grape should be. It promises to become one of the world's favorites. Our friends should become familiar with the Stark Bros.; it is almost a liberal education in fruit culture to do so, and everybody, professional or amateur, will be benefited by the acquaintance.

THERE are two kinds of fruit primarily—fresh fruit and canned fruit. The second kind differentiates into myriad qualities, the sort of cans used being largely responsible for the variations. Not so with the folk who are fortunate enough to have the Economy Jar. We have been experimenting with them this season, and we can say for them that evenness of quality is certain when these marvels of perfection are employed. The seal of these cans is hermetic, and no mistake. That is, the cans are actually and perfectly air-tight—and that is the secret of canning success. Then the jar itself is so handsome, so completely sanitary, with its large mouth, admitting the hand to every part of the interior, and showing off the fruit to the best advantage. We cannot speak too highly of the Economy Jar. It is made by the Kerr Glass Manufacturing Co., Portland, Ore. A postal card to the company will bring you detailed and valuable information.

FARM FENCES, like farm buildings, should be permanent improvements. You don't buy the cheapest lumber for your farm buildings. Neither should you buy the cheapest wire for your farm fences. The best quality of wire, firmly and securely woven, well stretched on securely anchored end posts, makes a fence that will last for years without repairs—that will outlast the posts. Quality of wire first and then a practical weave make Page fence the farmer's fence. Page fences have been on the market for twenty years, and the first one sold is still a good fence. Just how they are made is explained in a book which is sent to anyone who writes for it to the Page Woven Wire Fence Co., Box 102, Adrian, Mich.

THE men who till farms—the men of the soil—have made the foundation of lasting national life in every state.—Theodore Roosevelt.

SOUTH DAKOTA

The Land of Bread and Butter

South Dakota is long on wealth and short on people.

Today it presents the best opportunities in America for those who want to get ahead on the Highway to Independence. More than 47,000,000 bushels of corn, more than 47,000,000 bushels of wheat, live stock to the value of $41,000,000, hay to the value of $12,000,000, and products of the mines above $12,000,000, were some of the returns from South Dakota for 1905. With a population of only 450,000, and the annual production of new wealth above $166,000,000, it can be readily understood why South Dakota people are prosperous and happy.

Why don't you go there and investigate the openings along the new lines of this railway for yourself?

From Chicago and from many other points in Illinois, Minnesota, Iowa and Missouri, direct service to South Dakota is offered via

THE CHICAGO MILWAUKEE AND ST. PAUL RAILWAY

Its main lines and branch lines fairly gridiron the rich agricultural and stock country of South Dakota. Its mileage in South Dakota is more than 1,200 miles, and by the building of extensions is being rapidly increased.

A NEW LINE IS NOW BEING BUILT from Chamberlain, S. D., to Rapid City, S. D., through Lyman, Stanley and Pennington Counties. Some of the best opportunities for success are along these new lines. Land can NOW be bought at from $10 to $18 per acre, but these prices will soon advance. The railway company has NO farm lands for sale or rent.

If you are interested, it is worth while to write today for a new book on South Dakota. It will be sent free by return mail.

F. A. MILLER, General Passenger Agent - - CHICAGO

Grow Apples that PAY the Producer and Please the Consumer

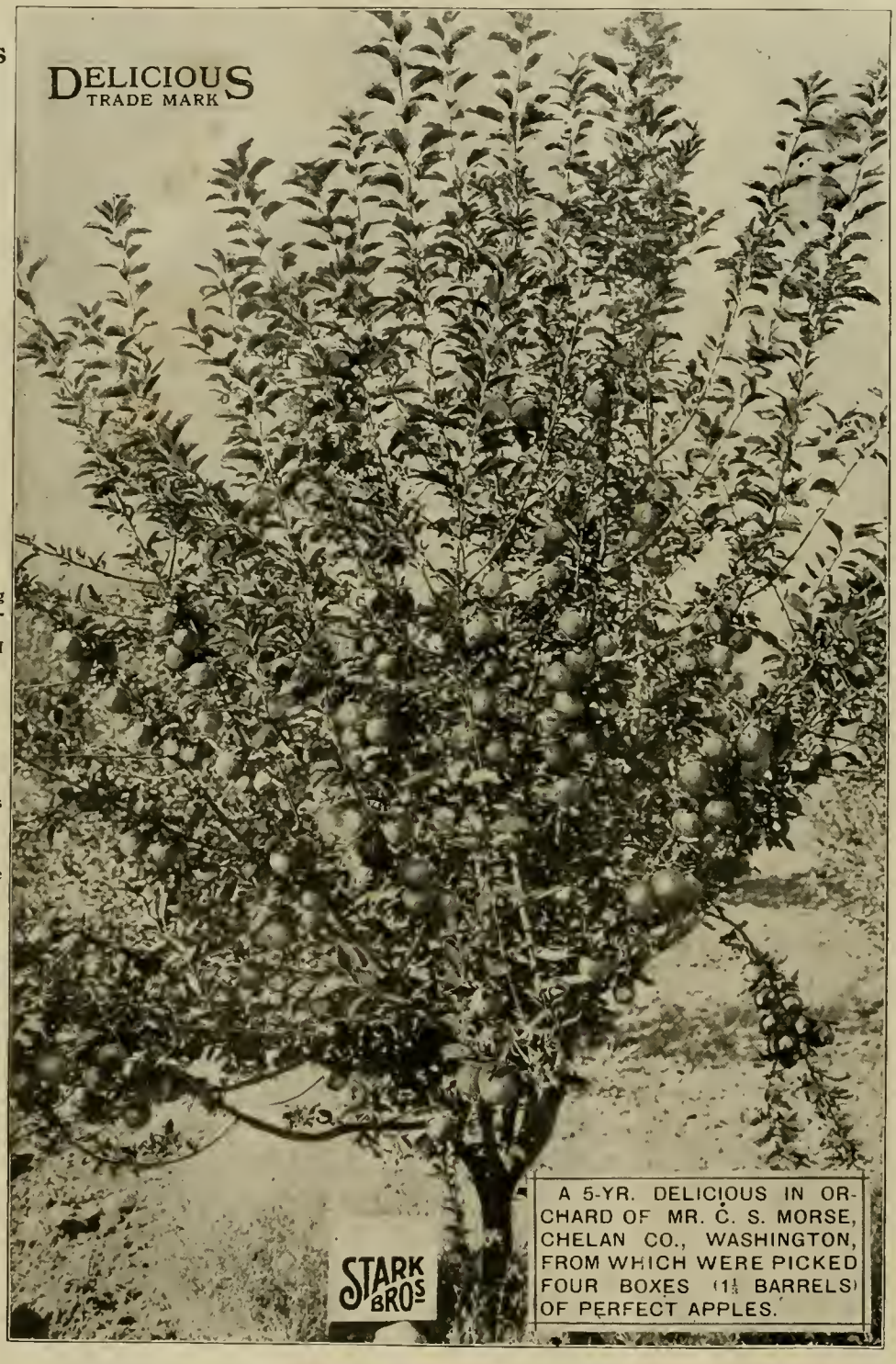
KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON. BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inferior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

For 82 Years STARK TREES

have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."



A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1⅓ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

NOVEMBER
1906

PUBLISHED BY
THE KELLOGG PUB. CO.
THREE RIVERS, MICH.

1907 Reading for Strawberry Folk

OUR CLUBBING COMBINATIONS FOR 1907

See These 3 Big Triple 3's

The Strawberry	$1.00
The World Today	1.50
American Magazine	1.00
Breeders' Gazette	2.00
Housekeeper	.60
Total Value	$6.10

3 .33 FOR ONE YEAR

The Strawberry - -	$1.00
Cosmopolitan - - -	1.00
Harper's Bazaar - -	1.00
World Today - - -	1.00
Floral Life - - - -	.25
Vick's Magazine - -	.50
Total Value - -	$5.25

$3.25

The Strawberry	$1.00
Farmers' Voice	.50
Breeders' Gazette--weekly	2.00
Farm and Fireside	.50
Boys and Girls	.50
The Housekeeper	.60
Choice of any 50c magazine named	.50
Total Value	5.60

$2.95

The Strawberry	$1.00
World Today	1.50
Breeders' Gazette	2.00
Farm and Fireside	.50
Boys and Girls	.50
Choice any 50c magazine named	.50
Total Value	$5.50

List of $1 Magazines

which may be substituted for any $1 publication mentioned on this page

Gleanings in Bee Culture	$1.00
Western Fruit Grower	1.00
Success	1.00
American Magazine	1.00
Little Folks	1.00
The Garden Magazine	1.00

The Strawberry	$1.00
World's Work	3.00
Delineator	1.00
McClure's	1.00
Total Value	$6.00

Single subscriptions for these magazines cannot be taken by any agent or added to any club at less than the full list price.
No change in this club allowed

3 .33 FOR ONE YEAR

IF you want any publication in the country and don't find it in this list, send to us for it, or make any combination you desire. We purpose to furnish our folks with the best and most desirable literature in the world at the lowest possible price at which it may be had.

The Strawberry	$1.00
Farm and Fireside--semi-monthly	.50
Housekeeper	.60
Western Fruit Grower	1.00
Choice of any 50c magazine named	.50
Total Value	$3.60

$1.95

The Strawberry	$1.00
Farmers' Voice	.50
Housekeeper	.60
Farm and Fireside	.50
Boys and Girls	.50
Choice of any 50c magazine named	.50
Total Value	$3.60

LIST OF FIFTY CENT MAGAZINES

Which may be substituted as desired for any 50c magazine named in any of the combinations on this page

Apple Specialist	$ .50	Farm Poultry	$ .50
Reliable Poultry Journal	.50	Poultry Success	.50
Am. Poultry Journal	.50	Green's Fruit Grower	.50
Poultry Tribune	.50	American Swineherd	.50
Vick's Magazine	.50	Boys and Girls	.50

The Strawberry	$1.00
Review of Reviews	3.00
Woman's Home Companion	1.00
Success Magazine	1.00
Total value	$6.00

No change in this club allowed

3 .33 FOR ONE YEAR

THE STRAWBERRY

—One Hundred and Eighteen Portage Avenue—
Three Rivers, Michigan

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 11 Three Rivers, Mich., November, 1906 $1.00 a Year

NOVEMBER'S winds are blowing out of the north, and the bleak landscape tells of winter's approach. In the light of the blazing hearth, with the music of the crackling hickory logs, winter seems a delightful season of the year. Stir up the fire and make it merrier, and let us look into the changing and picturesque figures, which nothing else makes to such perfection as hickory coals, with their wondrous brilliancy. And while we look and wonder at the kaleidoscopic transformation scenes, memory recalls visions of other days in the old homestead, where another great hearth gave off its comfort and its cheer, and made us boys and girls long for evening and the family circle gathered in its warm and generous radiance. Ah! those days and those nights of filial and fraternal companionship—how the thought of them causes the incidents and scenes of those long days of youth and their myriad tender associations to limn themselves anew, and in the glowing coals we may fancy the "orchard, the meadow, the deep-tangled wildwood, and all the loved spots" that made youth and home and the old farm sources of never-ending delight.

"—you'll find a patch of strawberries the rallying place for all the members of the family."

There was that immense hay mow in the barn that Father built in the year of the big fire. Don't you remember how we used to climb up there when the October rains were falling, and lie in the sweet-scented hay and listen to the patter-patter of the drops upon its great broad roof? What hours for day-dreams and plans that never went beyond the dreaming. Yet there were plans made then that did materialize, and what we are today and what we actually are doing relate themselves directly to those hours spent in quiet reflection or in optimistic converse beneath the generous shelter of the old barn! Surely "the child is father to the man."

Then there was the orchard, "where good digestion waits on appetite, and health on both." And how we used to test our digestive powers when the Rhode Island Greenings and the Northern Spies were a-gathering. Say, you wouldn't dare to tell how many of those great big juicy fellows you ate in one day! I'm always sorry now, when apple time comes and I can't make out to eat more than one or two at the most. And then the stomach of a healthy boy becomes chief of the things I envy.

But do you know what calls up the most blissful remembrances of all those youthful days—and it seems to me those coals over on that side of the fire are just now reproducing the scene as a human artist might do it? Well, sir, its that strawberry patch that lay just between the house and the vegetable garden. You remember it, don't you? Just a little to one side of the old well, with its long sweep always pointing off to the northwest. We boys liked the orchard, and the barn, and to visit with Old Kit and Fanny, the best team you ever saw in all your life, if they couldn't make a mile in Dan Patch's time. And you haven't forgotten little Jersey, have you, that used to give such quantities of cream at one milking that I daren't give you the figures for fear you'd doubt my truthfulness. I can taste the cream yet. But that strawberry patch—it was the one place that every member of the family took an interest in, and we boys never growled any when time came to work there. I guess I was the one that "took" to the work more naturally than the others, but Dick and Lucy were always ready to help, because there was recompense for every minute spent in that patch. Remember the Wilsons, and the Crescents, and that old juicy Jocunda?—makes a fellow's mouth water to just to think of them! And when I recall what that patch yielded in the way of the most delicious fruit ever grown—fruit that must have charmed the gods themselves if ever there were any of those mythological chaps around having a respectable man's appetite for good things.

Don't suppose you ever knew how I paid my way through college did you? Well, sir, that little patch did the business; or, I might say that I did the business with that little patch. How big was it? I can't exactly say—used to look pretty big sometimes when I had to go over it with the hand cultivator and the hoe. But I suppose it was about two hundred feet long and from one hundred to one hundred and fifty feet wide.

However, it didn't seem a bit too big when I came to count up my cash, after I had made up my mind to make it pay my way through the university. Fact is, I guess I used to be a little jealous that other folks liked that fruit so well.

But, as I was saying, every member of the family liked that little patch well enough to take a hand in its management, and next to the old fireplace in the big living room, I believe it was the most popular place for family gatherings. After the fruit began to ripen in June there was a family convention in that patch every day till the crop was gone, and everybody took a hand in gathering the fruit. And when it came time for me to go away to college, and Mother put her hand on my arm and said to me, "Well, John, you've earned your right to a good education, but the lessons you've learned in the strawberry patch will be to you through life among the most valuable and helpful!" I felt repaid for every hour of time I had spent there. And now I understand what she meant by her remark. These mothers of ours have a wisdom the depths of which we never may quite sound.

That's why I have a family strawberry patch right now. It is an inspiration and a joy to every member of my family, and the hours we spend in it together draw us closer one to the other. Our boys and girls work together there, if you may call effort, every stroke of which is pleasure, work. If you haven't a family strawberry patch, don't let another year go by without one—that's my advice to everybody; and I don't care whether you live in a metropolis or in a hamlet or on a farm—you'll find a patch of strawberries the rallying place for all the members of the family. It is a feature of family life you can't afford to neglect, no matter from what viewpoint it may be considered. As I say, it was an inspiration and a blessing to me, as well as a means to a broader intellectual life.

How a Novice Compels Success

By L. C. Stifler

I AM a novice in strawberry culture. Bought a little farm here, and with my excellent guide, The Strawberry, under my arm I hustled out last spring to see what I could do. Fixed over an old patch of nearly one-half acre that was on the farm when I bought it last year. Result: took to our home market over ninety cases of big red berries for which I received the top price. The good price we received was the result of our careful picking and still more careful packing.

That old patch was too weedy to suit me, so where the fine berries were there is now growing an immense crop of buckwheat—the weeds are still there; under the ground.

Well, I was busy in April and more busy first of May—could not find time to set the new patch, and May had almost gone by the time I did get at it. Had carefully plowed and fertilized part of my young peach and pear orchard and after a nice rain on May 23 I set the plants with a dibble made from a yellow pine board. I was short some 200 plants to complete my bed, so sent to a neighbor, who raises plants for sale; but he had none for me of the kind I wanted. He said to my buyer: "He is too late planting." Was I? Well, Mr. Editor, come over to VanBuren county, Geneva township, four and one-half miles southeast of South Haven, and see that strawberry bed of 1600 plants. Matted row? Not for me! I tried your double-hedge row and it is simply a "beaut." And that fellow that said I was too late will have to put an electric battery to his bed to have it catch up to mine. We are now busy hoeing and cutting off the runners and the bed is certainly a "thing of beauty." We had lots of berries this summer that measured seven inches around; from an old bed, too.

South Haven, Mich., Aug. 20, 1906.

Where Hasty Judgment Hurts

SOME months ago one of the most distinguished authorities in the strawberry world sent to The Strawberry a report of his experiences with certain varieties. In referring to one or two of the best known and most popular varieties he took occasion to criticise their performance in terms that could not have failed to prejudice the unknowing concerning them while it would have worked great injury to those growers of plants who annually grow and raise hundreds of thousands of these favorites. When his attention was called to this phase of the case this distinguished writer and experimenter promptly acknowledged the error involved in his act.

This incident is referred to here because we so often receive from our friends like reports of their experiences—friends who neither have time or opportunity or inclination to test with scientific exactness the performance of any variety even on their own grounds, and who apparently forget that a variety which may do poorly under the climatic, soil or cultural conditions obtaining in the particular instance, may under different conditions prove itself a leader.

As a general rule, and one to which there are few exceptions, no variety of plants is long offered by reliable nurserymen which does not possess distinct merit, and it is quite safe to conclude, when a variety fails you, that there is some local cause for the trouble. At least, it will be well to reserve one's condemnation until other growers in other sections are heard from.

If our friends who write us on this subject find we have omitted such references from their contributions they will understand why the omission is made. The isolated experience of one grower, taken by itself, is not sufficiently conclusive to aid others, while the denouncement of a variety, published in a journal like our own, might result in a general rejection of a worthy plant and in positive injury and loss to its honest and intelligent propagators.

Recollections of a Veteran

IN some interesting reminiscences, related in Green's Fruit Grower, L. J. Farmer, the well-known strawberry specialist of New York, has the following, and his success in that field is partly due at least to his pertinacity and his determination to stick to business even though his "best girl" had to suffer for it. We quote:

"The first strawberry plants I ever set out were from grandfather's old Wilson bed and some Crescents that came from a bed that my brother set out. I remember that my brother bought 100 Crescents for five dollars and set them in a little bed by themselves, not knowing anything about sex in strawberry blossoms. The Crescents, being pistillate, never produced much of a crop, although there were a few fertilized by wild plants. The most of the berries were nubbins. But when I set them out beside the Wilsons they produced wonderfully, and I never have seen them surpassed in productiveness. In 1886 I had rows 100 feet long that produced 100 quarts each to a picking. I have often thought that had my brother or even myself known the true value of those Crescents, we could have made a good thing from the 100 plants which we purchased for five dollars.

"The first real acre of berries I ever set out was in 1883. The plants were mainly Bidwell with a few Crescents and Charles Downing. The plants were purchased from E. P. Roe, who was also a plant nurseryman as well as story and horticultural writer. I hired two men to help me set them and not knowing much about directing help, I found after the work was done that one man had set them very carelessly, merely, in some instances, covering a part of the roots with a handful of earth. However, most of the plants lived, but it was a big job for a boy of seventeen years, and they got pretty weedy, and when finally all were hoed and cleaned out it was pretty late, and they never made much growth. I did not cover them, and the winter being severe, many were frozen out. In the spring I rolled them as one would a meadow. This was the first and last strawberry bed I ever rolled. The gross receipts from this acre were about $100, and would not have been near this but berries were high, nothing selling under 10 cents per quart.

"I used to do most of the hoeing my-

self, tend the pickers in the forenoon and sell the berries in the afternoon. I remember in 1886 of selling thirteen of the thirty-six quart crates of strawberries in one afternoon, all in lots of a few quarts to each house. The people used to expect me at a certain hour, and I have a pleasant picture in my mind of seeing the ladies of Jefferson street stand out by the sidewalk with their pans waiting for me to come along one evening. I happened to be a little late that day and they feared they were going to miss their strawberries.

"My father never liked the strawberry business and wisely opposed my plan just enough to make me determined. I sometimes think that had he "fell in" with my ways and tried to help it along, I never would have been so enthusiastic in the business as I have been. I feel that I needed a little opposition in order to fully show what stuff was in me. I remember a lesson he once gave me of learning to depend on myself. I graduated from Pulaski Academy in June, 1887. I did not attend school that spring as I was very busy with my strawberries. I had three acres to fruit and quite a large new set patch. There was a picnic for the graduates the next day after commencement exercises and I invited my 'girl' to go to the picnic. It was picking day that day and, on account of the extraordinariness of the occasion, I supposed of course that father would tend the pickers for me, but when I approached him about it early in the day, he very firmly told me that I must tend them myself. It was a very bitter lesson for me, but I staid with the pickers, although I felt like kicking myself for disappointing the girl."

A Noteworthy Strawberry Field

ON page 197, October issue, is a photo-engraving of the strawberry patch of W. C. Landis, Shoals, Ind. It would be impossible to conceive of a more perfect piece of cultural work than is displayed in that patch, and more beautiful plants we have not seen. We congratulate him upon his work and the results he has accomplished.

Mr. Landis writes us that his patch is 70 x 90 feet in size, with rows thirty inches apart and plants twenty inches apart in the rows. This patch was set April 15, 1905, to 500 Michels' Early, 500 Parsons' Beauty, and 200 Bubach plants, and they were grown in the double-hedge row. He has cultivated entirely with the rake and hoe. Mulched his plants with new wheat straw January 20, 1906; uncovered them April 1. First bloom was April 15 and first berries were picked May 19; last berries picked June 14. Mr. Landis sold his first box of berries for 25 cents, and sold sixteen boxes of the last picking for 20 cents a box. Of his total crop of 469 boxes 309 boxes were firsts and brought him 15 cents a box; 160 were seconds and sold for 10 cents a box. From which fact one may judge of the high quality of those seconds. How many would be pleased to have their firsts equal them!

Mr. Landis' patch is not only a thing of beauty; it points out the way to all of us to win large success by doing every part of the necessary work in the best possible way, confident that the harvest time will bring a sure reward in cash and in that fine pleasure that the consciousness of having done the best we could must always bring.

The Value of Ventilated Strawberry Boxes

DISCUSSION as to the relative value of the ventilated strawberry box has not been altogether favorable to the box made with that point in view; that is, the ordinary box has been found sufficiently ventilated to admit of the necessary circulation of air to preserve the fruit in good condition and flavor.

Herewith is shown a box recently made by a citizen of Rockford, Ill. It is made in one piece, and, as will be seen, is perforated and the base cut out for purposes of ventilation. Anent the question of its superior value because of these perforations and open base, The Strawberry addressed an inquiry to William A. Taylor, pomologist in charge of field investigations for the department of agriculture at Washington. In reply Mr. Taylor says:

"From such experiments as we have conducted we have found practically no difference in behavior of strawberries in storage in any of the commercial types of package yet tested. All strawberry boxes in commercial use known to us are 'ventilated,' i. e., none are too tight for free movement of air if the crates are given proper space when piled.

"We have tested some comparatively tight special packages, however, and find that while the tightness secured by wrapping a crate with heavy paper or the individual boxes or baskets in it with paraffin paper is desirable because it protects fruit from disagreeable odors that may arise from other products in the storage room, it is quite possible to cause injury to the flavor of the fruit by enclosing it so closely as to prevent all movement of gases. In such case the exhalations from the fruit are retained and smother it so that it dies quickly and becomes tainted in flavor."

SPECIMEN OF A VENTILATED STRAWBERRY BOX

NATHAN'S teacher, according to the Boston Herald, told the class to make a rough illustration of the poem, "The Old Oaken Bucket."

Nathan's illustration consisted of a large circle, three buckets and a bunch of dots.

"Nathan," said the teacher, "I don't understand this. What's the circle?"

"That't the well," replied Nathan.

"And why have you three buckets?"

"One is 'the old oaken bucket' one is 'the iron-bound bucket,' and the other is 'the moss-covered bucket which hung in the well.'"

"And what are those little dots?"

"Those are 'the loved spots which my infancy knew.'"

How White Strawberries Were Introduced

VAGRANT tales concerning the strawberry are frequently found in the newspapers, and the enterprising authors are quite apt to be more interesting than veracious. But here is one that we risk clipping for the benefit of our readers, warning them that we assume no responsibility as to its authenticity. It is an account of the accidental manner in which the discovery recently was made that the white strawberry of Jamaica will thrive and yield abundantly in the rigorous climate of New England.

According to the narrator the white berries reached Boston port as a private speculation on the part of a steward on one of the United Fruit Company's steamers, who took aboard a crate of them with the idea of working up a de-

36

Montgomery Ward & Co.'s

No. 75 Catalogue Now Ready FREE

Nearly 1300 large pages, thousands of pictures, 127,000 articles. The biggest bargain book ever printed. Beats all Catalogue records for quantity, quality and low prices. Full of many things you want that you cannot buy near home and multitudes of things of better quality and at lower prices than any other catalogue or store offers you.

Send for Your FREE Copy Today.

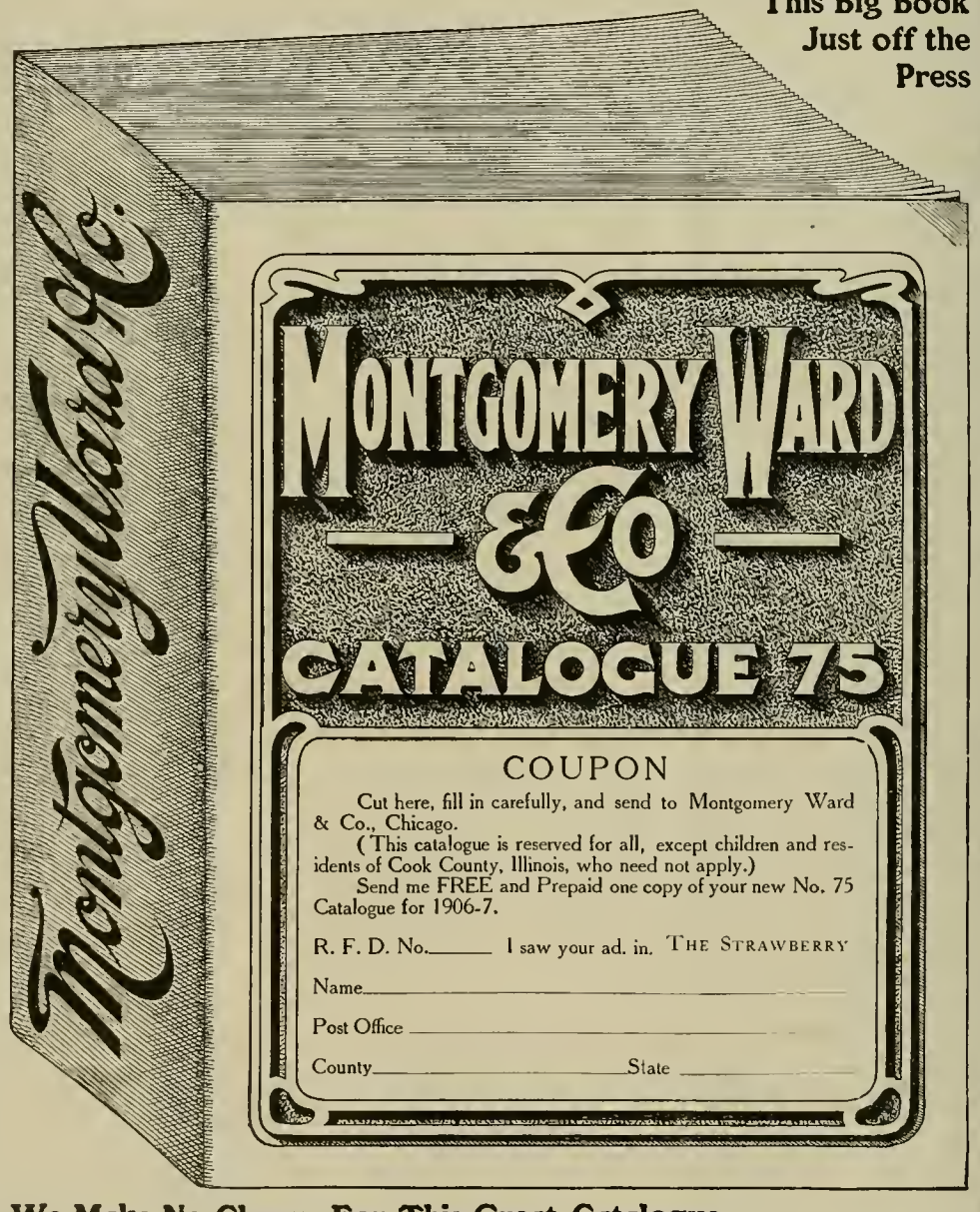
$50.00 a year, at least, is easily saved by every one using this No. 75 Montgomery Ward & Co. Catalogue to order goods from. Many write us of saving hundreds by being our regular customers. It pays others, it will pay **you.** We are the originators of the Catalogue business. We have been square with our millions of customers for 35 years—we will be square with you.

Valuable Premiums Free

In this new No. 75 Montgomery Ward & Co. Catalogue is an entire section devoted to our new **Free Premium Plan,** which illustrates and describes all the many valuable articles we give free to our customers, including Pianos, Buggies, Sewing Machines, Watches, Jewelry, Diamonds, Morris Chair, Couches, Chairs, Saddles, Books, Shoes, Carpets, Curtains, Tools, Scales, Harness, Stoves, Lamps, Violins, Guitar, Music Boxes, Sporting Goods, Clothing, Furniture, Dinner Sets, and very many other choice articles, all given to our patrons. It is worth your while to get this big No. 75 Montgomery Ward & Co. Catalogue for 1906-7 just to see this wonderful **Premium List** of things that await your selection if you become our customers.

Send your name and address carefully written on a postal card or in a letter, or attached to your next order, or fill out coupon in the picture; either way that is easiest. Just say "Send me free and prepaid one copy of your new No. 75 Catalogue." Do this before you forget it, right now. We will then send it at once.

This Big Book Just off the Press



COUPON

Cut here, fill in carefully, and send to Montgomery Ward & Co., Chicago.

(This catalogue is reserved for all, except children and residents of Cook County, Illinois, who need not apply.)

Send me FREE and Prepaid one copy of your new No. 75 Catalogue for 1906-7.

R. F. D. No._____ I saw your ad. in. THE STRAWBERRY

Name_____

Post Office _____

County_____ State _____

We Make No Charge For This Great Catalogue

We even prepay the postage. Ordering a copy of this large Free Book puts you under no obligations to buy anything of us. We ask you to send for it, read it, look at the pictures and prices, and then when you find out how much money it saves you you will be glad to order from it, for it means a saving of 20 per cent to 50 per cent on everything you wear, eat or use in any way. Remember this is no partial list or imitation of the Montgomery Ward & Co. Catalogue, but is the genuine, the latest, the complete, new, large Montgomery Ward & Co. Catalogue, Number 75, for fall of 1906 and all of 1907, full of the very latest styles and newest city goods of every kind that you can possibly want or use **DON'T DELAY**—send for your copy today. It will go to you at once, by return mail if possible, all prepaid and absolutely **free** of all cost.

Montgomery Ward & Co., Michigan Avenue, Madison and Washington Streets, **Chicago**

mand at the fashionable hotels. His scheme fizzled almost as soon as the stewards of the local houses saw the berries. No amount of persuasion could convince them that the berries were not green when picked and subjected to a chemical process that would give them every other appearance of ripeness.

In any event they refused utterly to have anything to do with them. And this resulted in the Italian venders getting the white berries at a bargain. They did their best with them from house to house, but the people of Boston were as skeptical as the hotel stewards.

This did not bother the Italians, though, for they simply went to a vacant lot in West Roxbury, picked over their berries, and mixed the white ones with the red. In the process some of the leaves in which the Jamaica brand were packed fell to the ground, where they took root and thrived. A little girl removed them to the family strawberry bed, and this year they have yielded a crop that, plant for plant, makes their red sisters look small. The discovery is regarded as important by horticulturists, who have for years regarded the Jamaica white berry as a standard so far above the ordinary red berry that it has been considered impossible to reach it.

Success Under Difficulties

By J. M. Rimel

NOTWITHSTANDING my failure to get a stand of plants last spring I have them all reset three feet one way, twelve inches the other, with plants I raised myself for the most part. I commenced to reset in July and finished September 1. My plants have grown finely.

I think this would be a good place to start a propagating bed to supply plants in the fall. By setting plants here in the fall we can have nice plants by the first of August. What do you think of the project—do you think it would pay?

I see a great deal in The Strawberry about the white grub. This summer, when I was cultivating what few strawberries I had, I found the ground full of white grubs, and I thought they surely would get what few plants I had. I turned on the water and when the ground got thoroughly wet the grubs came up near the surface and the birds (mostly robins) found them out. The birds just riddled the ground; picked it so full of holes that it looked like a seive. I have cultivated my strawberries since I reset them and found but four plants eaten off and found only two grubs.

The Strawberry is a welcome visitor and seems to get more interesting each month.

Asotin, Washington.

Mr. Rimel did not give up because of discouraging conditions in the spring, but kept right at it. The result is that he is to be rewarded, no doubt, with a bountiful crop of berries in 1907. Too many of us give up if things don't go off smoothly the first pop, and by so doing lose not only a crop of strawberries but the fun of compelling things to come our way.—Editor The Strawberry.

One Way of Reducing the Cost of an Acre of Strawberries

By Joseph Bolt

I SAW an article in the October number of The Strawberry on the cost of an acre of strawberries, which I think subject to modification. I showed that article to a friend. He read it and

JOSEPH BOLT

laid the paper down, saying: "Yes, I see; to raise fancy strawberries is a game for a rich man to play at, but a poor man better keep his hands off."

Now I always claim it is a game for a poor man to get a start with, and so I said: "Let us see if we can't shave that down some and not lose any of the intensive part of it." And so the following dialogue took place:

"Your land is rather poor; it needs building up?"

"Yes; too poor for strawberries."

"Well, suppose you start next spring to build up one acre. You have a horse?"

"Yes, an old plug; but able to pull a plow."

"Well, you plow one acre and plant it to peas; common cow peas. When they are ripe pick off the peas and plow the vines under. Then put on another crop of peas; pick the ripe peas and plow the vines under again. Now let us see about a manure pile."

"Yes," said he, "that is a question. I have no straw and can't afford to buy it."

"Well, can't you go into the woods and rake up leaves—any kind except pine—and keep your horse stable well filled? Then put a few posts in the ground and nail on some old boards, or rails, so as to make a pen or large box, and from time to time clean out your stable and put the manure in there. Then you have chickens?"

"Yes, about twenty-five."

"Well, throw a few shovelsful of earth under the roost, say once a week; and when you have a load put that on your manure pile. And what does your wife do with the soap suds from the weekly washing?"

"Throws it away!"

"She does, eh? Well, suppose you take that to your manure pile—it helps to rot it. Then what do you do with your ashes—you burn wood? Put a barrel somewhere handy under shelter and deposit the ashes in that, and you will be surprised to see what a big pile of manure and ashes you can gather in a year. Then after the second crop of peas is rotted spread on your manure and plow that under, and you are ready for your plants, except to put your ashes on and work this land a couple of times with disc or harrow. Then you can do all the rest of your work—a great deal of it before breakfast. You can nail up your crates at odd times; you can be your own foreman and carry the berries in; your wife can do the packing."

"Yes," said he, "I see you have been through the mill."

So when we were done shaving down the cost stood some like this:

Picking 6,000 quarts strawberries	$ 60.00
250 crates	20.00
6,000 boxes	18.00
7,000 plants	28.00
Total outlay	$126.00
Sold 6,000 quarts at 9c	$540.00
Total outlay	126.00
Leaving cash balance of	$414.00
To which add for the two crops of peas sold at least	35.00
Making grand total net earnings	$449.00

Then my friend said: "I shall fix up an acre, or at least a half-acre; and when I want any shaving done I'll call on you!"

Certainly these figures represent the poor man's way of making money with strawberries."

Brooklyn, Fla.

Every reader of The Strawberry will read Mr. Bolt's clear statement with interest and satisfaction. The figures given in the October issue represented the case of those who employ labor in the work and pay for all the work done. Mr. Bolt shows how the man who employs his own hands in the work and is aided by his wife, can make a handsome rev-

enue from a small area of land and a little cash investment. It is a hopeful picture Mr. Bolt presents of the large opportunity to the man of small means thus opened by the limitless field of strawberry production.

Nine Hundred Dollars from an Acre of Strawberries

By H. Walter

I LIKE The Strawberry very much, but in reading it I fail to find any reports from Canada. Perhaps your readers on the other side have an idea that we can't grow strawberries worth mentioning over here, but I think I can convince them that we can. I grew strawberries this year at the rate of $900 to the acre. Fifteen berries of the William Belt variety filled a quart box, and some of them measured seven and a half inches in circumference. One plant had on it by actual count, 150 berries.

For the first time I fruited Parson's Beauty this season, and they were a sight worth looking at. I felt repaid for all my labor and was very proud of the results.

I grow plants by the hill culture, and have William Belts that measure thirty-three inches across, and Parsons' Beauty as large as from twenty-two to twenty-eight inches.

I am compelled through poor health to quit my trade (shoemaker) and have decided to go into fruit and gardening.

I have bought fifteen acres near one of the best towns in Canada. I am within a few miles of one town with a population of 13,000 and another about 4,000.

I am greatly taken up with the growing of small fruit, especially strawberries, and I am quite satisfied that I will make a success in the business.

Bright, Ont.

There is no doubt of success! The man who lays down the hammer and awl to go into strawberry culture and make such a showing as this correspondent has done, need not fear to leave any other line of work for the strawberry field. Such reports from the amateurs not only stir the professionals into greater activity and to adopt better methods, but they hearten everybody and prove what we so confidently repeat from month to month, namely, that there is no other field that offers so great opportunity to the person of limited means as does strawberry production. Mr. Walter indicates how great are the possibilities from one acre of perfectly developed and perfectly cultivated plants. No one pretends he could have accomplished such results from poor plants that received scant attention. But it's worth while, from the dollar-and-cents viewpoint, to devote thought and labor to a line of work that will produce $900 from a single acre of land. And with two good towns within reach from his fifteen-acre fruit farm, we shall expect to hear fine reports from Mr. Walter. And that his health will be benefited by the change there is equal certainty. We hope that ten thousand of our good friends who are looking for a profitable vocation may follow this worthy example.—Editor The Strawberry.

Spring the Time to Plant

ONE of the readers of The Strawberry recently objected with unseemly heat and vigor to the position taken by this magazine relative to summer and fall planting for strawberries. It is therefore with added pleasure that we quote from Franklin Brown, who, in replying to an inquiry from a subscriber to the Wisconsin Farmer, thus treats this subject:

"The proper time to set strawberry plants is in the spring as early as the ground is in condition to be worked. Much has been said and written in regard to planting in the summer and fall, and many attempts have been made in this direction with the same almost universal result—failure.

"The strawberry needs the whole season in which to establish a good root system and build up fruit crowns. Plants set in the summer do not have this opportunity and therefore fail to be productive.

"The strawberry plant which is taken up and set out has two functions to perform, both of which it can do well if it has the entire season. The first function is to make crowns with which to bear fruit the following season. The other is to become the mother of other plants by means of its runners. A plant set in June or later cannot fulfill both these functions, and weak crowns and weak plants are the result.

"As for using plants which have fruited, this should not be done. An old strawberry plant has a tough, woody root which cannot support the plant and allow it to perform its work. In digging strawberry plants the old ones may easily be recognized by this condition of the roots, and such should always be rejected."

Referring to failures made in the growing of strawberries, Mr. Brown says: "From my own experience and observation I can say that the cause of nearly every failure is the failure to observe some cardinal rule of proper berry culture. In this connection it perhaps would be well to lay down the precept that he who would raise strawberries should plant only strong young plants in early spring and give them the best possible cultivation and attention."

"A Kalamazoo Direct to You"

Radiant Base Burner High Grade Parlor Heater for Hard Coal

"Kalamazoos" are fuel savers.—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality—
They are easily operated and quickly set up and made ready for business—
Buy from the actual manufacturer—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

Oak Stove Heater For all kinds of fuel

We Pay the Freight

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo at any price.

We want to show you **how** and **why** you save from 20% to 40% in buying direct from our factory.

If you think $5, or $10, or $40 worth saving

All Kalamazoo cook stoves and ranges are fitted with patent oven Thermometer which makes baking and roasting easy.

All Kalamazoo stoves and ranges are guaranteed under a binding, legal and thoroughly responsible $20,000 bond to be exactly as represented.

All stoves blacked, polished and ready for immediate use when you receive them.

You won't need the help of an expert to set them up in your home.

Royal Steel Range For all kinds of fuel.

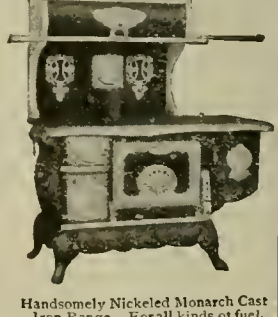
SEND POSTAL FOR CATALOGUE NO. 348

Examine our complete line of stoves and ranges for all kinds of fuel; note the high quality; compare our prices with others and then decide to buy from actual manufacturers and save all middlemen's profits.

Catalog shows 207 styles and sizes for all kinds of fuel. Write now.

Sold on 360 Days Approval Test.

Kalamazoo Stove Co.
Manufacturers,
Kalamazoo, Mich.



Handsomely Nickeled Monarch Cast Iron Range. For all kinds of fuel.

SPREADING THE MULCH IN A LARGE STRAWBERRY FIELD

Autumn Work In the Strawberry Field

WHERE strawberries are grown either in narrow or wide matted rows there are always, at this time of the year, a large number of the plants that are immature and poorly rooted. If these are allowed to remain in the rows they will only interfere with the development of good plants and prevent them from doing their best at fruiting time. Before you do your mulching, therefore, go over the rows and remove these unprofitable occupiers of the land. In doing this work we have tried several methods. One is to run the hand through the row of plants, allowing the fingers to act as the teeth of a rake. Another is to take a common iron garden-rake and draw it gently through the plants. Plants that will loosen with this treatment are better out than in the patch, because if the plant is not sufficiently rooted to resist this mild treatment, it certainly is not well enough developed to make a heavy fruiter. In the matted row it will pay to rake good and hard and thin them out, even though a good plant once in a while thereby is lost. This method does not apply to either single or double hedge row. We would caution the grower against running the rake or the fingers through any part of a row where the plants are very thin or where a vacancy has been filled in by layering runners. In places of this kind, even though the plants are not extra-well rooted, let the plants remain, so that they may make a continuous row for the second crop.

Remove the Weak Plants

THIS is the month when mulching will be done over a large section of the country, and we shall give in detail here the reasons why it should be done, what to use for mulching, and the way in which to do the work. We have been experimenting for some years for the purpose of determining the best time to apply the mulching, and in making these tests small blocks were mulched just before the ground was frozen, while others were mulched after the ground was frozen to the depth of some two inches. Still another plot was mulched after the ground was frozen sufficiently hard to sustain a load of straw, and a fourth block was not covered until the latter part of winter. The result of this test experiment was that the strawberries mulched in November, before the ground was frozen at all, proved best of all, and this was true of the plants in every particular. These experiments covered a period of several years, and in every instance the early mulching proved far in advance of all the others. Of course, in a season where growing weather continues until into December, as has occurred, mulching is not to be done until the plants cease growing. This may easily be detected, as the plants will assume a ripened appearance when growth ceases.

Mulches and Mulching

AS in all other departments of work, individual growers must determine for themselves as to details. For instance, one's location and the climatic conditions prevailing must be considered, and sometimes even seasons differ sufficiently to make some changes of time, perhaps of method, necessary. If you are located in a state where the ground freezes solidly and the winters are severe, then the mulching should be applied over the entire surface of the ground as well as over the plants. The depth of the mulching should be sufficient to cover the ground and all of the plants, except where the plants have an excessively heavy foliage, when it would be difficult to hide all of the tops under the winter covering.

Applying the Mulch

ON the other hand, in the case of those who dwell under warmer skies, where freezing is very light, mulching may be deferred until some time in December, and it need not be applied so heavily as in the colder sections. And yet it should be sufficiently heavy to shade the plants so as to keep them dormant until the desired time for making new growth. Plants will not stand so much covering where the ground is not frozen hard, but will bleach and smother under a covering as heavy as that applied in the northerly latitudes. Remember, that the roots of a plant will continue to grow so long as the ground is not frozen to the depth to which the roots extend. In the extreme South, where it never freezes, some growers may think it unnecessary to mulch. But this is a wrong idea. While mulching in that latitude is not done to protect plants from freezing and thawing, it should be done to keep the berries clean. In such a climate mulching need only be placed along the side of the rows, but not over the plants.

Mild Climate Mulching

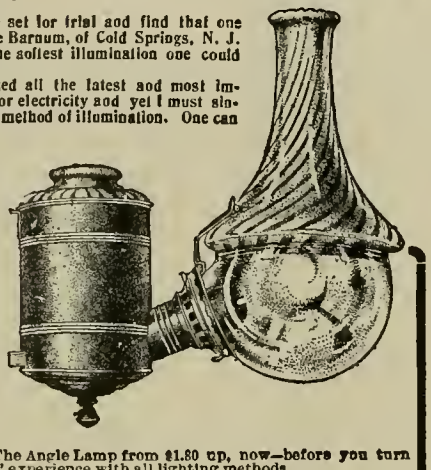
GIVEN a choice of materials we should take, first of all, old wheat straw, and if it were partly decayed, it would suit us all the better, and this because it would be broken up finely and would lie closer to the ground, and therefore would be less liable to the influence of the winds. But we never yet have been able to get a sufficient

Materials for Mulching

"Better Than Gas," SAYS THIS NEW YORKER.

"I have used The Angle Lamp far beyond the time set for trial and find that one cannot be too enthusiastic over it," writes Mr. Grosville Barnum, of Cold Springs, N. J. "It certainly gives the brightest and at the same time the softest illumination one could desire.

"We lived in New York City for some years and used all the latest and most improved appliances, devices, etc. in connection with gas or electricity and yet I must sincerely urge the superiority of this simple yet wonderful method of illumination. One can hardly say too much in its praise."



——THE——

Angle Lamp

makes common kerosene the best, the cheapest and most satisfactory of all lighting methods. Safer and more reliable than gasoline or acetylene, yet as convenient to operate as gas or electricity.

The Angle Lamp is lighted and extinguished like gas. May be turned high or low without odor. No smoke, no danger. Filled while lighted and without moving. Requires filling but once or twice a week. It floods a room with its beautiful, soft, mellow light that has no equal. **Write for Our Catalog "54" and** our proposition for a

30 DAYS' FREE TRIAL.

Write for our catalog "54" listing 32 varieties of The Angle Lamp from $1.80 up, now—before you turn this leaf—for it gives you the benefit of our ten years' experience with all lighting methods.

THE ANGLE MFG. CO., 78-80 MURRAY STREET, NEW YORK.

quantity of this material, and so we take whatever material comes most readily to hand. Rye straw is an excellent mulch, marsh hay makes a good third choice; oat straw is good, the principal objection to it being that it becomes matted together in such a way that it is very difficult to make an opening in it for the plants to come up through in the spring; coarse manure is another favorite. Shredded corn fodder is ideal as a mulch, but it is quite expensive. Thickly sown corn produces a very fine stalk which answers the purpose excellently. The illustration at the head of the next page shows a field of sown corn being cut with a common wheat binder, which ties it in bundles, making it convenient to haul to the fields and place on the plants. An illustration of this work also is shown herewith, in which you will observe that the bundles are laid directly on the row, one just behind the other.

WHEN the bundles are all placed in this manner, simply cut the strings and spread the corn out so as to cover the plants; also the space between the rows.

Applying the Corn Fodder

You readily will see how easy it will be to part the corn stalks over the row next spring so that the plants may come up, and what a fine clean floor this material makes for the strawberries to ripen upon. Old leaves from a forest also may be used, the only objection being that forest insects may be found in the leaves. However, this danger is so slight that we rather would use the leaves than let the strawberries go without a proper covering. Our Southern friends find pine needles a mulch of high quality, and leaves stripped from cane plantations serve them well. Buckwheat straw is away ahead of no mulch at all.

LET us consider for a moment the advantages of mulching, for there are few things of greater importance entering into strawberry production than this. Its principal object during winter is to prevent sudden thawing during bright days. Alternate freezing and thawing causes contraction and expansion of the soil, which results in straining and breaking the roots. A mulched plant remains undisturbed, thus allowing the roots to remain firmly fixed and in a perfectly dormant condition. Then the roots will callous and remain so until it comes time for them to get into action in the spring. This insures a strong and powerful plant, capable of developing a heavy foliage and a bumper crop of big red berries. Mulching also prevents the dashing winter rains from beating directly upon the surface of the soil, and this keeps the soil from forming a hard crust,

Advaotages of Mulchiog

retaining its mellowness and avoiding closing up the air spaces so important to the life of bacterial germs. And don't forget that it is because of the industrious work of these little friends—these same bacterial germs—that the food is prepared for the plants, and nothing must be overlooked that will aid them to perform well this important task. The mulch also shades the ground and holds the plant food in the soil, or, in other words, retains fertility in the soil. It holds the snow, causing it slowly to percolate into the soil as it melts, thus filling the subsoil with a great quantity of moisture like a reservoir, to be drawn upon throughout the growing season.

MULCHING prevents the washing of the soil, which causes a great waste of mineral matter. It keeps the fruit buds from swelling during warm spells in winter, which is an important factor in preserving the strength and fruit-producing powers of the plant. It is a guarantee that there will be no weakened roots to check the rapid movement of sap when spring comes and nature sets things in motion. Mulching is an economy, rather than expense, isn't it? Then in the spring, the foliage is in a healthy condition, green and full of strength. This aids in starting a vigorous new vegetative growth, which the plant must have before it can develop and mature a big crop of fancy berries. It holds the water in the soil so that it cannot escape except as the plant absorbs it. It plays an important part during the blooming period. When a heavy rain falls, if it were not for the mulching the

Mulching a Great Economy

APPLYING SOWN-CORN FODDER AS A MULCH

THIS illustration makes clear our method of applying as a mulch fodder which comes from thickly sown corn. When this photograph was taken we used only a few bundles in order that the illustration might be as plain as possible. We are sure that all our readers will get the idea from this picture. It is evident that applying it in bundles is much easier than by any other way

HARVESTING A FIELD OF SOWN-CORN GROWN FOR MULCHING

drops of rain would beat sand and dirt into the bloom or flowers, destroying the influence of pollen. This will make many blank blooms as well as knotty and undeveloped berries. It also keeps down the dust in a dry blooming season. And there is the weed problem: mulching is the best check on weeds ever discovered. Mulching forms a carpet not only for the berries, but fot the pickers. And then when you go to market with your fruit, your customers welcome you with a glad hand and cheerfully pay the price for a first-class product. Another great advantage of mulching is that after the fruit is picked you are able to burn the mulching off, which will destroy insects and fungous spores, and will furnish enough ashes to aid materially in growing a second crop of choice fruit.

SINCE the above was put into type we have received from a Morenci, Mich., subscriber the following inquiry: "Are sorghum cane stalks that have had the sap or juice squeezed out of them good for mulching strawberry plants?" and advising us that he can secure an ample supply of this material from a near-by sorghum mill. Nothing could be better; indeed, the sown-corn concerning which we have had so much to say, is very much like sorghum pomace as a mulch, and the latter will give our reader excellent satisfaction. It is wise thus to use the products that grow locally, and there are few neighborhoods which do not provide some mulching materials.

AMONG the pleasures of this life few are more enjoyable than visits from congenial friends. And, as everybody in the horticultural world knows, or ought to know, James M. Irvine, editor of the Fruit Grower, published at St. Joseph, Mo., all will understand what a good time we have been having when we say that Mr. Irvine spent two days with us in October. Mr. Irvine is a fruit grower himself, a lover of flowers, and, most of all, a lover of his fellow-men, and he radiates sunshine and happiness wherever he goes. Mr. Irvine is not only winning success in his journalistic work, but as a

Let Me Quote You a Price on the AMERICAN Manure Spreader

We manufacture and sell the celebrated American Manure Spreader to the consumer direct from our factory—saving all the middle profits made by jobbers and dealers. These profits are left out of consideration in the prices that I want to make you direct from our factory on an American Manure Spreader.

This means that you can buy from our factory at factory prices—be a Wholesale Buyer.

And that isn't all! We don't ask you to pay cash in advance.

We sell the American Manure Spreader on Time—liberal time payments—giving our customers easy terms to pay for their Spreaders—letting the Spreader really pay for itself as it earns for you.

We are the only concern in the United States manufacturing and selling Manure Spreaders direct to the user on time and on trial at low factory prices.

The American Manure Spreader has 40 per cent more exclusive features than any other Spreader. It is high-class in every respect—made to last a lifetime.

There is no question about the American Manure Spreader being the standard Spreader of the world.

30 Days' FREE Trial

To prove all of our claims for the celebrated American Manure Spreader, we allow 30 days' trial on every Spreader we sell.

This permits the customer to see the Spreader on his own farm for a full month to be satisfied that it is just as represented. If not as represented it can be returned to us. We pay all freight both ways—trial being FREE.

The low price I want to quote you on an American Manure Spreader will be for the Spreader delivered at your station.

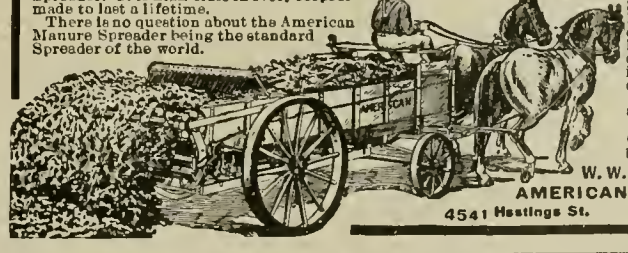
We Pay All Freight

This price will be for the Spreader on time—this price will be for the Spreader on trial—and this price will be a price that is lower than dealers are charging for Spreaders that are not nearly so good as the American. When you examine all the exclusive features of the American you will agree with me.

Write for my price—and write for my catalogue and booklet. They will tell you all about the American Manure Spreader and give you a lot of good information on the question of fertilizing—a question that every farmer is interested in and wants to know all about.

Just write me today on a postal card.

I will see that you get our book and my especial price at once.



W. W. COLLIER, Gen. Manager
AMERICAN HARROW CO.
4541 Hastings St. DETROIT, MICH.

FRUIT TREES

Start your orchard now. Fortunes have been made by it. Start right by planting hardy, well cultured stock, that will live anywhere—guaranteed—materially less than agent's price—ask for prices on 1,000 lots. Illustrated Catalogue free.

CHATTANOOGA NURSERIES
Box 10 CHATTANOOGA, TENNESSEE

citizen, taking a leading part in those things that make for civic righteousness and true moral progress, his place is an enviable one in the community in which he lives.

Concerning the Forcing of Strawberry Plants in Pots

By Professor S. W. Fletcher

WHAT would be the best way to get a few strawberry plants to fruit the last of next September in pots? Yours truly,

Tylerville, Conn. E. E. S.

I DO not know of any attempt to force strawberries in pots so that they will fruit in September, and doubt very much if this can be done expediently. They can, however, be brought into fruit any time after the middle of November or the first of December. A fall crop of many varieties can be secured, however, by cutting off the blossoms in the spring. Briefly, the essential points are as follows:

In July take the first runners from the young plants, set in the spring of that year, and layer them into three-inch pots which are sunk into the soil beside the plant. When the runner has filled this pot with roots, sever it from the mother plant and pot it into a five or six-inch pot in good soil which contains much fibrous material. That secured by the rotting of turf is good for this purpose. A sprinkling of lime and of rotted manure should be added. The plants in pots should now be placed in cloth frames with four or five inches of cinders beneath them and packed around them. This keeps them cool and prevents worms from entering them. Water them copiously, shade them if necessary, keep the runners picked off, spray with Bordeaux mixture for the "leaf spot" and encourage in every way the growth of large forcing crowns. Put a sash on the frame to ward off the early frosts and keep the plants growing until the first of November. By that time they should have so completely filled the pots with roots that when a plant is turned out of the pot, no soil can be seen, simply a mat of roots. Now allow the plants to harden off gradually by leaving them exposed to cold weather. They may be mulched lightly with leaves or straw.

By the first of December, or any time later, the plants may be brought into heat. Strip them of diseased leaves, spray them with Bordeaux and place them in a temperature of from 40 to 50 degrees if possible, but a warmer temperature will do. The idea is to raise the heat gradually to simulate the gradual approach of summer. Syringe the plants frequently with water to keep off red spiders. The blossoms will need to be brushed over every sunny day to distribute the pollen. After the fruit is set, water the plants twice a week with weak liquid manure. If possible, raise the temperature as the fruit becomes riper. Support the fruit from the wet soil in the pot by strips of wire netting or by sticks under the fruit stalks. Potted plants forced in this way should yield more per square foot of area occupied than plants in the field. A limited quantity of fruit will sell in large cities for $1.50 to $2.50 per quart during the holidays, at Easter and other times during the winter. The plants are worth from 50 to 75 cents to use for table decoration, but of course the market must first be secured and only cities of considerable size furnish such a market. The best varieties for forcing in pots are Brandywine, Glen Mary and Marshall, Brandywine being the best.

A few plants can be forced in the windows of dwelling houses with considerable success. We have over 3,000 plants at the college which will be forced this winter in pots, in greenhouses, benches, in cold frames, in pits and in the field.

Agricultural College, Mich.

NOT by appointment do we meet Delight and Joy; they heed not our expectancy. But 'round some corner in the streets of life they on a sudden clasp us with a smile.—Gerald Massey.

9.95 Buys This Large Handsome Nickel Trimmed Steel Range

without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, $13.95; large, square oven, six cooking holes, body made of cold rolled steel. Duplex grate; burns wood or coal. Handsome nickel trimmings, highly polished.

OUR TERMS are the most liberal ever made. You can pay after you receive the range. You can take it into your home, use it 30 days. If you don't find it exactly as represented, the biggest bargain you ever saw, equal to stoves retailed for double our price, return it to us. We will pay freight both ways.

Write Today for our beautifully illustrated **Stove Catalogue No. 1123**, a postal card will do. 75 styles to select from. Don't buy until you get it.

MARVIN SMITH CO., CHICAGO, ILL.

A Cracker-Jack Idea

YOU have the fresh popcorn and other necessary material, and I have the formula for making the most crisp, delicious and healthful Cracker-Jack on earth. Now, what I propose to do is to send you my formula with complete instructions for making **Potter's Famous Cracker-Jack** if you will send me 25 cents. Why pay a big price for a little bag of stale cracker-jack when you can learn how to make my famous brand at so small a cost? Send me 25c in silver or 2c stamps and I will forward my formula and full information by return mail. It will tell you how to make your own cracker-jack, and earn big money.

Clark Potter, The Cracker-Jack Man, Three Rivers, Mich.

We vouch for Mr. Potter.—KELLOGG PUBLISHING CO.

BRICKLAYING

The best of trades. Learn bricklaying and earn from $5.00 to $6.00 per day

Write for particulars

CHICAGO SCHOOL OF PRACTICAL BRICKLAYING

Adams St. and S. 42nd Ave., CHICAGO, ILL.

Something Beautiful for Xmas

A STRAWBERRY SOUVENIR SPOON

The Berry Handsomely Engraved

IN A BOWL OF GOLD

Neatly Boxed and Mailed for $1.50

Complete Satisfaction Guaranteed

A. SMITH, Jeweler, 151 St. Joe Street THREE RIVERS, MICHIGAN

STRAWBERRIES

ARE grown more extensively in Eastern North Carolina than anywhere else in the world. Less than twenty years ago this territory began shipping berries to Northern markets. Since then the business has steadily grown until in 1906 berries were shipped to the value of nearly $7,500,000. And yet the supply does not equal the demand for the North Carolina berry.

Finest of berry land may be bought along the lines of the

Norfolk & Southern Railway

at very low prices and on easy terms.

Why not come South now and take advantage of present low prices before real estate values are advanced? For further information, write to

F. L. MERRITT, Land & Industrial Agt.

302 Citizens' Bank Building NORFOLK, VA.

Federal Meat Inspection Law

On or after October 1st, 1906, all parties (butchers, dealers or farmers) are prohibited, by the provisions of the law referred to above, from any interstate shipment of any carcass, or part of carcass, or meat product, of cattle (including calves, sheep, swine or goats,) unless and until a certificate is made and furnished by the shipper in one of the forms prescribed by the Secretary of Agriculture, as provided below, viz:

When shipped by retail butchers and dealers, whose products have been exempted from inspection, certificates prescribed by Regulation No. 55 will be required.

When shipped by farmers, whose products are exempt from inspection, certificates as prescribed by Regulation No. 56 will be required.

It required that the certificate be made in duplicate. The original certificate will in all cases be retained on file in the office of the transportation company and the duplicate must be forwarded to the superintendent of the division who will transmit it without delay to the Chief of the Bureau of Animal Industry, Washington, D. C.

These forms will be furnished by mail in pads as follows:

One Pad of 24	$ .20
One Pad of 50	.30
One Pad of 100	.40

The Avery Press

THREE RIVERS, MICHIGAN

How Laddie Cured Father's Rheumatism

By Edgar L. Vincent

"BEEN out to see 'em lately, Father?" Father had not. He had been too busy to spend much time fussing with berries. Then, rheumatism had him fast by the legs these days. It was all he could do to get around and do the farm work that was actually necessary, saying nothing about such frills as Laddie was giving his spare time to this summer

"They're dandies, Father!" Laddie cried enthusiastically. "Better come out and see 'em."

Father did not hurry much, though. He was too lame for that; but some time that forenoon Laddie did capture him and march him down to the garden.

He had been down there before and, in order to make the surprise he had in store for his father, he had covered the one plant upon which he had spent all his time and strength when he could be spared from other things, with an old newspaper.

Now pulling this aside he triumphantly exclaimed, while Father smiled in spite of his incredulity.

"How do they look to you, Father? Didn't I tell you they were dandies? I didn't stretch it any, did I?"

Oh, no. Laddie had not told half the truth. Such a beautiful plant as it was that greeted Father's eyes! The stems lifted themselves bravely, drooping under the tufted foliage. But the grandest of all was the burden of bright red berries clustering about the splendid plant. Every berry seemed to be perfect in form. Many of them were now fairly ripe, while there were dozens still only half developed. Laddie had cared for his pet plant well. Father could see that. It looked so rich and well cultivated.

"'Twon't do anything on this soil, Laddie," he had said when his boy first spoke about setting out some of the plants. "No use to spend your time and strength fussing with such things. It will be all we can do, and more too, to take care of the corn and potatoes. You know I can't get around to help much. You'll have it all to do in a year or two, unless I get the start of this lameness."

"Wish you could take a lay-off a few months and go somewhere till that lameness went away."

Laddie looked serious. It was a thing he and Mother had often talked over when Father was not present. They hoped it would leave—that miserable rheumatism. Seemed as if Father might have been spared that. He had enough besides to trouble him. The debt on the place must be cleared off, somehow. He could not stop till that was done. At least, he would not feel that he could. It worried him and kept him from being quite his own old self. Dear Father! How Laddie would like to help him more! The shadow on his face was like a big cloud coming over the face of the sun on a fall day. It hid a great many things beside the smile on Father's face.

"You wouldn't care if I tried just a few plants, would you, Father? I'll take care of 'em. They shan't stand in the way of the other work."

So Laddie sent a letter away to a firm that made a business of growing plants. He told them about the nature of the soil of the old farm and they sent him half a dozen good plants, adapted to the conditions as stated by Laddie.

But a dry time came on after the boy had set out the plants. He did not know how much water a strawberry plant can use and had not heard the statement of one of our leading growers, made a good many years ago:

"The strawberry needs three things to make it do its best. First, water; second, water; third, more water." So only one of the plants came through. But how he did fight for that one! He dug around it. He kept the weeds down. He put plenty of fertilizer about it. He loosened the soil about it and after he came to undestand the need of moisture he watered the precious thing two or three times a day, no matter how tired he was or what else might come in the regular work of the day.

After that little exhibition, and especially after they had all enjoyed a great feast from the grand old strawberry plant, it was not quite so hard work to convince Father that perhaps it might not be altogether wasted time to set out a few more plants. Two dollars was all Father felt that he could invest at that time for the lad's new venture. Another year the rheumatism might leave him, so that he could help some about it. The debt would be paid by that time, too, and things might brighten up a bit.

He never knew just what Laddie wrote to the house when he ordered the plants. But Laddie told them about Father's rheumatism and how he hoped to be able to help him to take a trip away to the "Springs" for a few weeks and asked them if they would trust him for plants enough to set out a quarter of an acre.

"I'll pay for every one of them," he wrote. "You needn't be afraid to trust me. We're good for it."

And the firm took Laddie's word for it and forwarded the plants. A letter accompanied the shipment, giving Laddie some instructions how best to care for the plants and assuring him that the house shared his hopes that Father would soon be all over his lameness.

The berry patch was away down in the back lot. Laddie never said a word when father suggested that that land was not good for much else. He couldn't afford the best land for berries. That must be given to something that would amount to more. He just shut his teeth and buckled in the harder to bring that field up to the right state of fertility.

"I'll plow it and take all the care of it, Father. Don't you think a single thing about it. When you're off at the Springs 'll be time enough for you to think about the berries!"

Father smiled a bit. What a grand thing hope is! And there is no hope like the hope of a boy like Laddie. Father wished he were a boy again, just for the sake of knowing the joy of such a spirit once more.

The next two years were pretty hard ones for Father. The rheumatism did not seem to get any better. More and more of the farm work fell on the boy. He was getting to be a big boy, though, as tall now as his father. Slender, but strong. Still, it was almost too much for him to do. Mother felt it, and often she went down to the berry field with him after the day's work with the other crops was done, and together the two toiled till the moon was bright in the eastern sky, weeding and otherwise caring for the berry plants.

"Wish Father could see 'em now!"

Laddie had half a mind to hitch up and bring him down, just to let him see what a glorious sight it was. For he never had been in sight of the field since it had been set out. He was too lame and too busy. It seemed to him Laddie ought to be resting when he was down there fussing with the berries. It did not seem to him anything would ever come of it. How many men have thought just that way about berries. Well enough for the men that make a business of it; but for farmer folks—why, it was just a waste of time.

But there came a time when Laddie hitched up quite a while before day and slipped away to the city. He and Mother had worked a good deal later than common for a few evenings before that. Father wondered what they could be doing so late in the field. But he was too tired to follow them. He was still sleeping when Laddie drove out of the yard. He and mother did the milking and other chores and most of the rest of the day he sat waiting and looking down the road for the boy's return.

"Queer how we miss Laddie when he's gone, ain't it Mother? It's getting to be so, though. He'll have to take the load on his shoulders pretty soon. If I could get rid of this lameness! But I don't suppose that'll ever be now."

"Don't you get discouraged, Father! Things come 'round the way we don't always expect them to. I wouldn't a

bit wonder if you was down to the Springs inside of a month from now. Laddie's got his heart set on it."

"He hasn't said much about that lately. Guess he has about given it up. Might as well."

Mother did not tell her husband how many times she and the boy had talked it over down in the field, watching the berries grow. That was to be their secret. But she had come near to letting it out when she least meant to.

The long day came to an end at last, though, and Laddie came running in from the barn after the team had been cared for. He jingled something in his pocket as he bounded out where Father sat on the porch.

"Got your trunk packed, Father?"

"My trunk packed, Laddie?"

"For the Springs. You're going, you know. This very fall. Wait till the threshing's done. We want you to 'tend to that. Then you're going, sure. Just look at that!"

He poured out something less than a peck measure full of coins into the hat of the father, who sat there with eyes bulging out.

"Where in the world, Laddie—?"

"That's the first of the berry money, Father. More where that came from, too, isn't there, Mother?"

And then the secret came out. Hopes were being realized. Fears were being swept away. New dreams were coming into the hearts that loved so truly. In spite of all the doubts, berries were indeed worth while!

That quarter of an acre of strawberries did send Father away to the Springs. They did more. They cleared up the balance on the mortgage. They put a little money in the bank, all that one fall. Father would not have believed it. Away at his resting place he received the letters every day telling him of the sunshiny times which had come to the farm. He was in a hurry to get back and take a hand once more; and when he did, the berries should have a better part in the farm operations than ever they had in the past. It had been a hard tug for Laddie; and how bravely he had gone about it, too! It made him ashamed to think of it. But they would not let him come back till the soreness was all gone out of his poor old limbs.

It went at last, though, and just the evening before Thanksgiving Day Father came home. He sprang up the steps like a boy of sixteen. No more limping and groaning. The aches and the pains were all gone. It was indeed a joyous Thanksgiving time. How they liked to talk about it now! Such planning for the future! Such day dreams as there were that day. And most of all, the thanksgiving was for the beautiful berries that had made all the rejoicing possible.

"The strawberries did it, didn't they Father?"

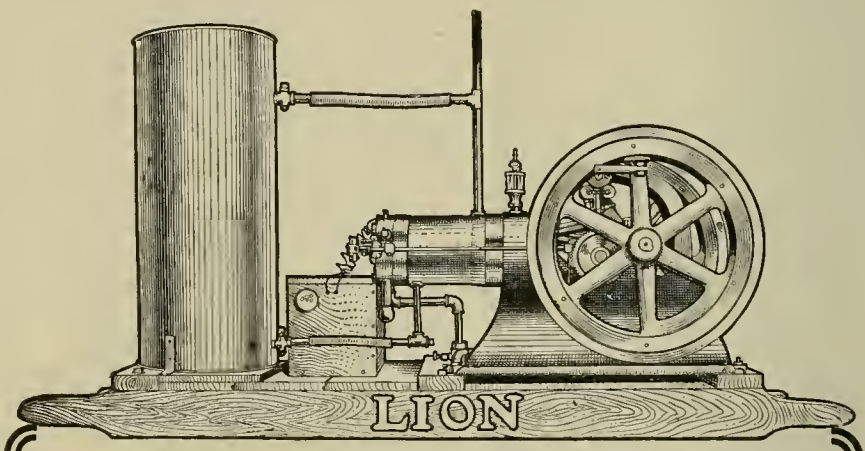
"The berries and Laddie!"

Father's eyes were full of tears and they all thought for a moment that the Thanksgiving turkey had grown wonderfully tough and hard to swallow. But it wasn't the turkey's fault! He was all right. It was the berries.

Binghamton, N. Y.

WILL Brother Smith lead in prayer?" said the leader of a revival meeting in Georgia. Seven men arose and began praying at once. This embarrassed the leader and he said hurriedly, "I meant Brother John Smith!" At this announcement one sat down and five more got up and began praying. The preacher saw his mistake, said nothing and let the eleven pray it out among themselves.

$39 FURNACE Wrought, not cast. Riveted, not cemented. 3-in. thick **life time fire-box. NEVER** gets dirty. On trial. $15 down. Tools free. Can be set up by any one. Illustrated book, showing how simple it is, sent free. Schafer Furnace Co. Box C, Youngstown, Ohio



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

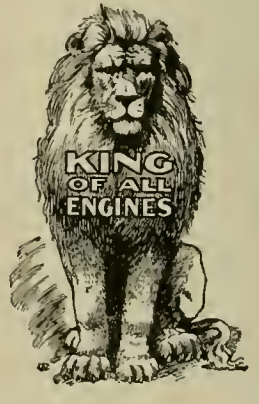
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

LYONS ENGINE COMPANY, Lyons, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in The Strawberry. Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

LYONS ENGINE COMPANY, Lyons, Michigan.

The Autobiography of a Strawberry Grower

By Frank E. Beatty

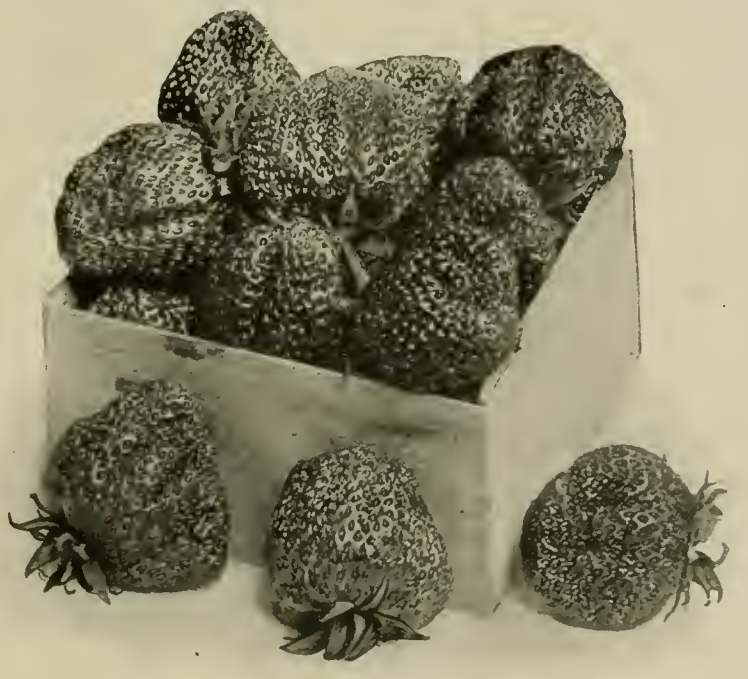
Chapter I—In which is shown how High Expectations Create Boundless Enthusiasm

I HAVE always been impressed with one peculiar thing about mankind in general. I refer to his inevitable view of another man's business as offering greater opportunity for the display of his powers, or as a means to a increased revenue, or greater pleasure; and to consider that whatever of success his neighbor has achieved as the result of some happy circumstance, never stopping to think that such success is the direct result of hard and patient toil and study to master the very difficulties which we ourselves are trying to overcome. We are so apt to think that the other fellow has reached his enviable position by a "streak of luck" and that while we must toil and struggle he lies on flowery beds of ease. And many a life has been turned from success to failure because, just on the eve of the favorable turn in affairs, the discouraged man has "lost his grip," given up and thereby sacrificed all the gain his work had made. And sometimes the thought that I, too, nearly became victim to my fears in that direction, sends cold chills chasing each other up and down my spinal column.

In this and succeeding chapters of this biographical sketch, it is my purpose not only to present the ups and downs through which I passed on the way to what may be deemed a fairly successful career as a strawberry grower, but to give also the manner in which difficulties were overcome and in such a practical way as to aid our readers to meet them with intelligence and success. And I am sure that the knowledge of the reader that he is not the only one who has had to meet obstacles with grit and determination, with muscle and with mind, will inspire him with hope and courage and lead him on to success.

Strawberry growers of this day have the advantage over me in one very important particular. Fifteen years ago there was no literature worthy the name upon the subject of strawberry culture; today lessons it cost me thousands of dollars to learn are available to you practically at no cost whatever. Let it be remembered that many of the very important discoveries pertaining to strawberry culture and to the nature and habits of the plant itself have been made within that period, and it has been my good fortune to be able to contribute somewhat to this important work. It is my ambition to give to the strawberry world whatever of information these years of experience have given me.

When I began in the business I knew no more about strawberry culture than a long-eared mule knows about umpiring a game of base ball, but had to dig my information out as I went along, paying a high price for some of it, too. The first thing I did was to set about one acre of plants, and as the varieties used were principally Warfield and Crescent, and the plants were taken from an old run-out patch of the "pennyroyal" strain, you better may imagine the cost of my first



lesson than I would care to tell about.

I was at the time a traveling salesman for a manufacturing concern, or, as some people say, a "runner." My experience as a runner was that the early bird got the order, and so adapted that rule to the strawberry business and set my plants early in April. They were put out on well-prepared soil and I gave them pretty good care. Everything went on as smoothly as the sleigh glides on sleet-covered snow until about the first of July. At this time it seemed as if some magic power had entered into the plants, causing them to burst out into a perfect mass of runners until it seemed to me that the whole world was going to runners. And that is when the sweat started to run. The next few weeks was not unlike a continuous Turkish bath.

When I first saw these runners I thought they were great, and I rushed into the house and said to my better-half: "Well, wifey, if the firm I travel for can make big money with only a few "runners," we ought to make a young fortune in the strawberry business; because every plant appears to be sending out a hundred or more runners, and from the looks of things there must be a new runner born every minute. When all these are fully grown and get down to actual business, then is when you and I will shine with the best of 'em."

But my wife did not catch my enthusiastic spirit; she seemed to be more interested in the bread she was making than in that glorious strawberry bed, with its promise of a golden harvest. "Come out and see for yourself!" I cried; but the greater my excitement the faster she kneaded that dough, not thinking that I needed her more.

"I can't leave now; the bread will spoil if I do."

"Oh! that makes no difference; one poor batch of bread won't give us dyspepsia. Just come and take a peep at those fine, vigorous plants, and you'll begin to see that a few loaves of bread don't count when compared with the great things we shall realize from that patch of plants. After we sell the berries you won't have to bake any more bread or anything else. And I'm going to give up my job on the road and go into the strawberry business right; no more traveling for this boy!"

So out to the patch we went and surveyed the sight together. "Well, Frank, they do look pretty good," admitted my wife, "and things seem to be coming our way. But I think the best thing for you to do is to hold your position until after the berries are marketed and then we shall know just how much clear money there is in an acre of strawberries. A bird in the hand is worth two in the bush, you know."

"Well, wifey, that sounds like good advice, but I know your eyes will bulge out when you see the results that come from this patch of berries. I just wish you could view that scene through my eyes. I fail to see any bird in the bush in this deal. There's money in it and lots of it." But she had not heard. That bread dough had come to mind and as I turned about I caught sight of her running

SAN JOSE SCALE
AND
INSECTS
Are easily killed by Takanap Soft Naphtha Soap. Endorsed by U. S. Government and State Experiment Stations. Write for Sample and particulars.
TAKANAP CO., - - - DARBY, PENNA.

toward the kitchen door. "That's just like a woman," I said to myself. "They can't see money in anything till its right in their hands."

I didn't like the road, and wanted to quit and be at home, where every man ought to be. But "A bird in the hand's worth two in the bush" rang in my ears continually and—I held on to my job. "But I'll show her birds right in the hand next summer; big red birds, and bushels of 'em, right from these very bushes!" I declared to myself. "For these vines will be so chock full of the real genuine strawberries that she'll find there's something else to do on this farm than make bread."

(Continued in December Number)

WHEN Governor Head was in office in New Hampshire Colonel Barrett, says an exchange, an estimable member of the Governor's staff, died, and there was an unseemly scramble of would-be successors for the office, even while his body was awaiting burial with military honors.

One candidate, somewhat bolder than the rest, ventured to call upon Governor Head, thinking to ascertain the bent of the Governor's mind upon the important question.

"Governor," he asked, "not to speak in a manner too positive, do you think you would have any objections if I were to get into Colonel Barrett's place?"

The answer came promptly, "No, I don't think I should have any objections, if the undertaker is willing."

THREE RIVERS is famous for several of its products, but one of them, now but little known, is destined to fill an important place in the thought of the women of the country and in the domestic economy which is their chief concern. We refer to the Economy Kitchen Cabinet, made by the Economy Cabinet Co. of this city, and whom we take pleasure in introducing to our readers this month. The Economy cabinet is a marvel of convenience and a labor and step saving device of highest value. As a piece of kitchen furniture it excels in its capacity, while its cost is so low that every housewife may afford to buy one; in fact, cannot afford to be without one of them. Try one; your neighbors will quickly become customers of the Economy Cabinet Co., and will thank you for introducing it into your neighborhood.

WE are pleased to present again the Naylor Combination Harrow to our readers' attention this month. A year ago Mr. Naylor placed this harrow on the market, using solely as an advertising medium The Strawberry. The harrow was then manufactured at Moorepark, a suburb of Three Rivers; but the fame of its excellence spread, and recently a large company took over its manufacture and removed the company's headquarters to LaGrange, Ill., a Chicago suburb, and there it is now manufactured on a scale commensurate with the growing demand for this implement. It is one which every farmer and truck-grower ought to have, as its use results in making an ideal seed bed, while its light draught and easy manipulation render it one of the most desirable of aids in soil culture. Write for particulars of special offer.

Economy Kitchen Cabinet
DIRECT FROM FACTORY TO YOUR HOME

GREATEST LABOR-SAVER EVER DEVISED FOR WOMAN
NOTHING LIKE IT TO BE HAD FOR THE SAME MONEY

One Woman Writes: "I would not know what to do without it - it saves so many steps."

See the Conveniences and the amount of room it contains:

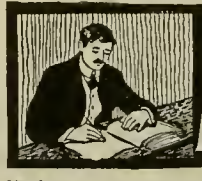
DESCRIPTION—Top Cabinet is 27 in. high, 8 1-2 in. deep, and 42 in. wide; it has a shelf above 8x40 in., with 2 large and 2 small drawers, and a place on either side for flavoring extracts, towels, etc Top of base is 26x45 in., made of whitewood; underneath this is a kneading, meat and bread-cutting boards; has 2 drawers; 2 large flour bins, holding about 50 lbs. each. This cabinet is made entirely of white maple, finished natural and built in the most substantial manner, making it one of the most convenient cabinets on the market

References: First State Savings Bank, Kellogg Publishing Co,, Three Rivers, Mich.

COMFORT CONVENIENCE CONTENTMENT **$9.45**

Shipped Promptly on Receipt of Price

ECONOMY CABINET CO., THREE RIVERS, MICH.



LEARN Bookkeeping Free

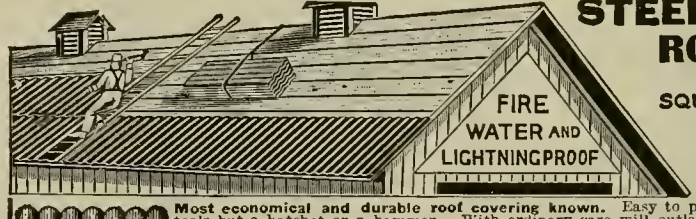
WOULD YOU LIKE TO SUCCEED IN BUSINESS?

Would you obtain a good paying position or secure an increase in salary? Would you possess the capacity that directs and controls large business enterprises? A knowledge of accounts increases your opportunities a hundredfold. Our method excels all others You can learn **quickly at your own home** without loss of time or money. We guarantee it. No trouble to master bookkeeping when a bookkeeper teaches it. The author of our works is an expert accountant; he has kept and audited books for the largest corporations in the world.

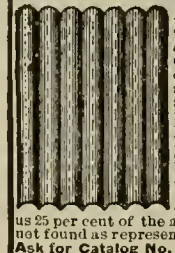
A Great Book Free!

"How to Succeed in Business" is the title of an extensive treatise on bookkeeping and business. It tells of the best system of accounts in the world. It explains how you can make more money and better your position in life. It is just the book for beginners. It is invaluable to bookkeepers and accountants. To advertise our system and other books, we propose to give away 5,000 copies of this book absolutely free. This offer is positively genuine and without any condition whatever. Simply send your name and address and receive the book without cost. A postal card will bring it.

Address COMMERCIAL CORRESPONDENCE SCHOOLS, 85 P, Commercial Bldg., Rochester, New York.



STEEL ROOFING
PER 100 SQUARE FEET
$1.50



Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new, painted red two sides. **$1.50** is our price for our No. 15 grade of Flat Semi-Hardened steel roofing and siding, each sheet 24 inches wide and 24 inches long. Our price on the corrugated, like illustration; sheets 22 inches wide x24 inches long **$1.60.** At 25 cents per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, **per square $2.00.** Fine Steel Beaded Ceiling, **per square $2.00.** Can also furnish standing seam or "V" crimped Roofing. **WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO** except Oklahoma, Texas and Indian Territory. Quotations to other points on application.

Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this advertisement C. O. D., with privilege of examination if you will send us 25 per cent of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit. **Ask for Catalog No. W-733.** Lowest prices on Roofing, Eve Trough, Wire, Pipe, Fencing, Plumbings Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales. **CHICAGO HOUSE WRECKING CO., 35TH & IRON STREETS, CHICAGO**

2 IN 1 IMPLEMENTS
FACTORY TO FARM

MR. FRUIT GROWER, HOW MUCH IS YOUR TIME WORTH?

You can save one-half of it when preparing the ground and cultivating by using our

COMBINATION SPRING AND SPIKE-TOOTH HARROW

Special Introductory Price and freight paid to first buyer in your locality. Send for free illustrated booklet and surprising special offer.

NAYLOR MFG. CO., Not Inc., 4 Spring Avenue, LA GRANGE, ILLINOIS

2 IN 1 IMPLEMENTS
FACTORY TO FARM

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

SOME of our readers may wonder why in this department questions that have been asked and answered once are answered again and again in succeeding issues of The Strawberry. One of the most important reasons for this is the fact that every month thousands of new names are enrolled upon the list of membership in this school, and each one of these is interested in the questions and answers; not only interested, but finds in them solutions for the problems that beset him in his work. For instance, there were, in round figures, seven thousand new names added to our list between the time of publishing the September and October issues—that is to say, the October Strawberry went into seven thousand new homes, and it is not to be doubted that seven thousand families of strawberry growers have read with profit the information, instruction and advice contained in that issue. Thousands more will go to new members with this issue. Then, too, we learn by reiteration. It is repetition that makes things "stick."

You will all agree, we are sure, that the leader of this class isn't given to scolding; but he would like to say one word here by way of suggestion. The other day we received a letter covering four pages of letter size, written on both sides, and in which were a dozen questions. That is what we want, of course; but these particular questions were inserted between long accounts of the writer's experiments and experiences, his hopes and his fears; and to extract the questions from the mass of other things was the work of hours. Will every member ask questions upon a sheet quite distinctly separated from all other matters? We don't believe you realize how refreshing and pleasant it is when we get correspondence in that form.

Now don't fail to have a Thanksgiving worthy of a great big T. The instructor sends his best wishes to the old members and the new, and takes this occasion to express his pleasure with the work of the school, and to assure each member that it is his determination to make it of increasing value with the coming year.

R. R. B., Clarion, Ia. This spring I planted 100 plants about a foot apart, and have cut all runners; have the largest, strongest plants I ever saw. They are too thick. What shall I cover with? Am thinking of leaves; will they mat down and kill plants?

It will be all right for you to cover your plants with leaves. Of course, there are some chances of carrying insects in the leaves to your plants, but if you cannot get anything else for a cover, the danger from insects is so slight that we would rather use the leaves than to permit the plants to remain uncovered.

E. S., Ladysmith, P. Q. I intend to start one acre or strawberries in the year 1908 and I am trying to prepare the soil, which is quite rich loam and lies to the east. Would it be all right to put manure on and sow to clover this fall, plow that under next year, in September, and then sow rye?

2. Did you ever try sheep manure, and would it be all right to put it on now?

3. About how much clover seed would it take to sow to the acre for plowing down?

It would not be safe to sow clover so late in the fall. The best thing to do is to break up this piece of ground and work in sheep manure or any other fertilizer you can get. Then next spring, as early as your ground will admit of harrowing, break the top crust, making a seed bed from one to two inches deep; then sow your clover. But we believe you would get better results by using cowpeas or Canadian field peas. These, of course, would necessitate the rebreaking of your ground so as to make a deep seed bed for these leguminous crops. In the fall of 1907, after the pea vines have become thoroughly ripened, turn them under and then sow rye.

2. We have tested sheep manure and are so much pleased with results that we shall use a very large quantity the coming season.

3. Three or four quarts of clover seed will be sufficient for each acre.

Mrs. L. B., Wolf Creek, Mont. In regard to irrigating strawberries: Is it best to allow the water to run around the plants, or be kept close to them on either side of the row in small ditches?

2. How often should they be watered? My experience has been to water them when first in full bloom and just after each picking. I have sandy soil and, if well manured, will require plenty of water, as that kind of soil gets dry very quickly; and even this far north the sun shines very hot in the summer. I want so much to make a success that I expect you will get tired of answering questions.

The best way to irrigate strawberries is to make a narrow but deep furrow directly in the center of the space between rows, and allow the water to run in these furrows until it soaks down to the subsoil. It will be unnecessary for the water to run close to the plants, as it will percolate through the soil until the roots are reached. While the water is moving from one soil grain to the other, it dissolves a small percentage of the mineral matter in the soil, which thus is made available for the plant's use.

2. The first irrigation should be made before the buds open; again when in full bloom, and repeat once or twice each week during the picking season. As your soil is sandy, unless your plants are mulched, it will be necessary to water them every two or three days. Of course, the frequency of irrigation will depend upon the amount of water used each time.

We are here to answer questions, and never grow tired of doing so if it serves our friends.

C. F. P., Tecumseh, Mich. Supposing a strawberry bed needs both cultivation and the removal of the runners—which would you advise doing first; or, in other words, which operation does the plants the greatest amount of good?

2. Should the buds and blossoms be removed from two-year-old plants, the same as the first year?

3. Should runners be kept off of two-year plants as industriously as the first year?

By all means cultivate first, because if a crust forms the water in the soil will work up by capillary attraction and be wasted. The sooner you can get a dust blanket around the plants after a rain the better it will be for them. After cultivating, remove the surplus runners. In doing this you will make tracks in the soft earth. These should be gone over with the cultivator, as always some moisture will be lost unless this is done.

2. No, because the plants are well established and are strong enough to produce a big berry for every bloom, provided they have been properly prepared for second crop as suggested in this magazine.

3. As a rule, plants do not make as many runners the second year as they do the first, for the reason that the last picking of the first crop is not made until about the 1st of July, and when plants are mowed over and burned off as we recommend, the second growth of plants does not begin to make runners until the first part of August. Unless the season is very wet, and therefore favorable to the multiplication of runners, the rest of the season will be required for the making of

sufficient runners to make a double-hedge row. When this row has been formed keep off the surplus runners as is done the first year.

F. W. P., Ravenna, Mich. I wish to start a small fruit farm, and ask you for advice. The land I have for strawberries is a gravelly, sand and clay soil. Do you think this is good soil for strawberries?

2. Which is the best berry to raise—early or late, and the kind that brings the best price? I expect to set my plants in the spring.

3. What time do you set the plants?

Your gravelly, sand and clay soil will be ideal for strawberries. It should have a light dressing of manure scattered over it this winter, then thoroughly worked into the soil next spring before setting the plants.

2. In selecting varieties, it is best to take some of the earliest, then some medium, and some late ones. This will give you berries from the earliest clear through the season.

3. In this state it is best to set plants as early in April as your ground will do to work in.

Mrs. G. D. B., Belmont, Mass. My plants are set out in the hill system, in rows thirty inches apart. How deep and how wide should I dig my trench for winter drainage? Should the earth be banked up on only one side of the trench?

2. Some of the new leaves have become a reddish-brown around the edges. As I have sprayed these plants twice in September with Bordeaux, I do not know how to account for this appearance of the leaf. Other new leaves are pale colored around the edges with a darker shade of green near the center. What is the cause of this? The leaves at the same time have the appearance of not being able to expand freely.

3. There are some tiny white flies on the under side of some leaves. Are these harmful?

4. Do crickets do any damage?

5. After one has obtained the first crop of berries from the hill system, are runners allowed to form in preparation for the second crop?

The furrow which is made between the rows of strawberry plants may be made with a common cultivator shovel, such as is used on five-tooth cultivators. They are about eight inches long and three-fourths inches wide. Simply make the furrow the same as you would if you were preparing to plant corn or potatoes. This will leave an even amount of soil on both sides of the furrow.

2. It is natural for the leaves of some varieties to turn red at this time of the year. However, it may be that the leaves are affected somewhat with rust, but it is hardly probable that it is sufficient to do any injury. It may be that some insect is working on the roots of your plants. This will cause the leaves to be slow in developing. Sometimes undesirable bacteria will cause this.

3. We hardly think that the white flies you speak of will do any great injury to your plants.

4. Crickets never do any injury to the strawberry plants, except sometimes they may work a trifle on the runner wires, but not enough to do any serious damage.

5. When growing strawberries in hills, after the first crop is picked you will get better results by allowing enough runners to form to make a double-hedge row.

U. G. K., Etters, Pa. I never tried to raise a strawberry until last spring, when I planted 2,400 plants, setting them three and one-half feet by thirty inches in new ground that never before had been broken. They grew finely and I cultivated until I could no longer get through the field on account of the runners; then I kept them clean by weeding, and today it is a perfect mat all over the patch. Now what I would like to know is, how I should proceed to thin this mass, as I have learned my mistake through reading The Strawberry. If I had known of your magazine sooner, this condition never would have been. The plants are as thick as they can stand. Please inform me what I should best do.

The best thing to do now is to go over the rows with a common garden rake, pulling the rake directly cross-wise in the row. By doing this the teeth will pull out all of the poorly rooted and weak plants, or you can do the work with your hands by allowing your fingers to act as the teeth of a rake, pulling them through and jerking out all of the small and weak plants. This will, of course, leave your rows rather wide, but it will thin your plants so that they will develop into heavy fruiters.

G. W. S., Sherman, N. Y. Our spring season is backward in this part of the state. At what time would you advise setting strawberries?

2. Do you advise keeping all runners picked from bearing beds of strawberries until after the fruiting season is over, and do you ever thin the blossoms?

Strawberry plants should be set in your locality just as early as your soil is in condition to work, but never attempt to plow and harrow your ground until it is dry enough to crumble. If the soil is wet enough to paste when rubbed in the

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 65 cents; or given as a premium for 4 yearly subscriptions at 25 cents each.

Our paper is handsomely illustrated, 44 to 80 pages, 25 cents per year. 4 months' trial, 10 cents. **Sample free.** CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE
85 Hogan Block **Syracuse, N. Y.**

Your Son or Daughter

Can acquire a practical Business Education during the winter months, at a price within your reach, at

THE THREE RIVERS BUSINESS COLLEGE

English branches, Standard Shorthand, Touch Typewriting, Actual Business Bookkeeping. **GIVE THE YOUNG PEOPLE A CHANCE.** It will mean dollars to them in the coming age of keen competition. Ask for catalogue

GEO. L. GRISWOLD,
Dept. B. MANAGER
THREE RIVERS, MICHIGAN.

850,000 GRAPE VINES

69 Varieties. Also Small Fruits, Trees, &c. Best rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. **LEWIS ROESCH, FREDONIA, N.Y.**

A SWEET CHESTNUT TREE

To get this valuable **"Blizzard Belt"** Chestnut quickly introduced and at same time gain new friends, we offer to send a **Hardy Sweet Chestnut** tree 1 year old, entirely **Free** to a limited number of property owners not already our customers. Mailing expense 5cts which send or not as you please. A postal will bring the tree. Our **Catalog** containing 64 colored plates of our **"Blizzard Belt"** Fruits, Ornamentals, Evergreens, etc., and a mine of valuable information for fruit-growers is free. Write today.

The Gardner Nursery Company, Box 802, Osage, Iowa.

palms of the hand, it is too wet for working, and will bake and become hard if worked when in that condition; it also will become flint-like and lifeless.

2. We have experimented some by pulling runners from our fruiting bed, and while it makes some difference, there is not sufficient increase to justify the expense.

P. S., Clyde, Kan. I am in the habit of tearing off the runners. Does that hurt them? They did not do as well the second year as they did the first; is that the cause?

2. Is wheat as good as rye to sow where I am going to plant a new bed? Rye is hard to get in this country.

3. I have some neighbors who are trying to excel me in strawberries, and could you advise me a good plant for the second river bottom?

It is quite likely that you have pulled all of the young runners off, leaving only the old mother plants, which are pretty well exhausted after producing their first heavy crop. We think another reason for your failure in getting a second crop is the fact that you have not properly covered with soil the crowns of the plants still remaining, and they have not had a chance to build up a new root system, which is made just above the old roots and below the crown.

2. Wheat would answer the purpose for a covering crop just the same as rye, but the reason we suggest rye is the fact that it is more hardy than wheat and it is not so expensive, but if you can not get the rye, you need not hesitate to sow wheat.

3. The fact that your neighbors are trying to beat you in the strawberry business should only enthuse you to do better yourself. If you will take Texas, Senator Dunlap; Dornan, Pride of Michigan, Glen Mary and Mark Hanna, you will keep the other fellows trying.

H. M. W., Watervliet, Mich. Worms ate my strawberry leaves this spring and in some places around here spoilt the crop. What can be done to prevent them doing the same thing next spring? Don't see any signs of them now (September). They commenced to eat when the berries were about half-grown, and they ate everything but the berries.

The insect which has been eating your plants during the fruiting season evidently is the saw-fly. The saw-fly is a small worm of a grayish color. It is generally found on the underside or shady part of the leaves. It eats the leaves full of holes, which destroys the breathing and digestive organs of the plants. At their first appearance spray with Paris green; in this way they are easily gotten rid of. The first brood hatches in this latitude about the 1st of May, and the second brood in June. These insects also are fond of raspberry bushes. You will not be troubled any more with them this season unless we have a very late fall.

Mrs. O. J. McL., Vallejo, Calif. My strawberry patch is only a very small one, being about 40x40 feet. Strawberry growing is only a pastime, but I would like so much for it to bear well for me, if possible. I have plenty of household work, but it is a hobby of mine—working in the garden. The soil is adobe. The plants have all run together and it looks like a wild matted patch. I read in The Strawberry for September of mowing the tops off. I think I shall do that, and then take out some of the plants and make the bed more uniform. I suppose four feet apart is near enough for the plants. Shall I take out the old plants and let the new ones remain or vice versa?

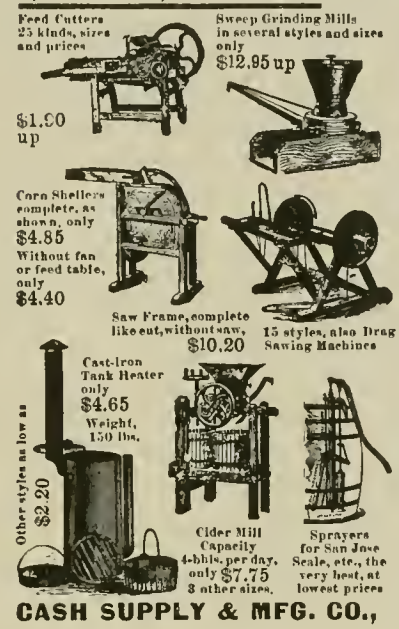
2. The foliage of my plants is immense. It is not because of too much fertilization. It must be that I have set all pistillate varieties, and they have no bisexual to furnish pollen at blooming time.

3. My ground is flat. Would you advise me to hillock the plants, or is this necessary?

It does us good to get a letter from a woman who is enthusiastic on strawberry culture. There is no work we know of which suits a woman better. Your method of mowing the tops off of the plants and narrowing down the row is correct, provided the plants have fruited one crop; but if these plants were set last spring, it would be best not to mow them off. They could be thinned out with a hoe. This is done by cutting the hoe through

Wholesale Factory Prices

on all Farm Utensils, Vehicles and Everything Else Needed for the Farm and Home. A Larger Line of Labor and Money Saving Specialties for Stockmen and Others than was ever before shown in any Catalogue. All sold direct from the Factory to You, by the big



KALAMAZOO SUPPLY HOUSE

If you have not already sent for our new 400-page catalogue send for it today before you order another thing anywhere for Fall or Winter. It shows a complete line of high grade implements, farm specialties, dairy and poultry goods, vehicles, harness, furniture, stoves and miscellaneous household articles, all accurately illustrated and described and all sold direct from the factory at the very lowest wholesale prices on a binding **guarantee of satisfaction or money refunded.** This catalogue will positively save you money if you are going to buy anything at all in our line of goods, for the famous **KALAMAZOO SUPPLY HOUSE** never takes a back seat for anyone in the matter of high quality and low prices. Operating at comparatively small expense and shipping direct from the factory, we are enabled to sell everything at the very rock-bottom price. If you think perhaps we are exaggerating when we say that, just **compare our goods and prices with the goods and prices of any other mail-order house in the world.** You will know then why we say we are entitled to your patronage. If there is anything you need for the farm or home this Fall or Winter you will find it in our catalogue, in **many kinds and styles and prices,** and all of **guaranteed quality.** Send for this catalogue and we will mail it, postage paid, at once. This does not put you under any obligations. We want you to have the catalogue. Address

CASH SUPPLY & MFG. CO., 665 Lawrence Square, KALAMAZOO, MICH.

450,000 TREES

200 varieties. Also Grapes, Small Fruits etc. Best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. Lewis Roesch, Fredonia, N.Y.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and **SPECIAL OFFER TO YOU.**

R. R. FISHER, Pub., Box 86, Freeport, Ill.

STRAWBERRY LANDS

The most profitable locations for raising strawberries are in the South, where the climate and soils produce large crops and where the berry ripens early, so that it goes to the markets of the country at the time when the highest prices are obtained. The various sections along the

SOUTHERN RAILWAY and MOBILE & OHIO RAILROAD

Are especially suited for profitable berry culture and fruit orchards and gardens. Lands may be obtained at extremely low prices. Good shipping facilities to all markets at rates which encourage the industry. Finest vegetable growing opportunities. Write the nearest agent for information about desirable locations, lands, etc.

M. V. RICHARDS
Land and Industrial Agent
Washington, D. C.

CHAS. S. CHASE, Agent
624 Chemical Building, ST. LOUIS, MO.

the row every six or seven inches. This will leave the plants in hills, and it will give each hill plenty of room to develop fancy berries.

2. The immense foliage produced on your plants must be on account of your soil having a large percentage of nitrogen in it. Pistillate varieties would not make any more foliage than bisexuals. If your berries do not fruit, then it must be because there is no bisexual to furnish pollen. You could set some bisexuals in among your plants where you have thinned out the others, but of course these would be so much younger than the plants you now have that they would not be able to furnish enough pollen to make a full crop of berries on the pistillate varieties, but it would help enough to give you berries for your own use.

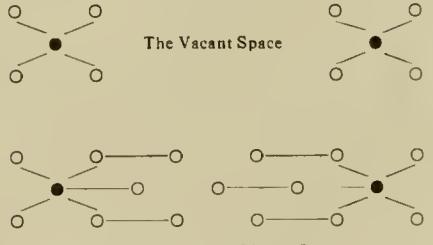
3. We note that your ground is flat. If it lies low, and water stands on the top after a rain, it would be a good plan to make small ridges before setting the plants. Or you could set the plants on the level and keep a furrow between the rows to take up the surplus water.

I. M. C., Hopkinsville, Ky. We are thinking of utilizing some four and one-half feet of ground between our rows of fruit trees in a young orchard, as follows: Plant two rows of strawberry plants three feet apart with plants eighteen inches apart in the row, thus making two hedge rows, each eighteen inches wide, with a space of eighteen inches between the vines. Cultivate with a compressed cultivator with a pair of revolving cutters eighteen inches apart. Take off two crops then let the runners run over the space between the vines for the third year. After picking the third year plow out the bed vines and let the runners cover their space. After the fourth year's picking plow out the center. Thus we would have hedge rows for two years and a matted row for two years, with a change of plants every two years. How will this plan work? Can you suggest any better? I take The Strawberry and like it very much.

Your method of growing strawberries, also your way of handling them between the rows of young fruit trees, will give good results, but we do not approve of your method of allowing the plants to remain four years before turning them under. As a rule, two crops are as many as profitably may be grown on one bed of plants. Of course, we understand that you purpose setting these plants in the orchard, and that the ground would not be valuable for anything else after you had taken off the two crops of berries; and in this case it might be advisable to carry out your plans, for even if the third or fourth crop did not produce fancy berries, you undoubtedly would get enough to more than pay expenses. And while you are cultivating the strawberries you are giving the trees the attention they require. The principal objection to allowing your berries to grow a third and fourth crop is that the trees will by that time be in bearing; certainly this will be so if they are peach trees, and it is not a good plan to cultivate peach trees later than August 1, while it would be too early to discontinue cultivating strawberries. If cultivation is continued up to late in the fall it will keep the trees in a growing condition, which will throw their energies to growing wood instead of maturing fruit buds. If they are apple trees, we do not think it would do any injury to them.

C. H., Creighton, Mo. I would like to speak a good word for your valuable paper, The Strawberry. It has been a great help to me. I am only an amateur in the strawberry business. I set one-fourth acre of plants last April and tried to follow your method of cultivation the best I could. I have a fine stand of plants with but few vacancies. I am growing them in single and double hedge rows, according to variety. Everyone that has seen them says it is the finest patch they ever saw.

I have seen frequent mention in The Strawberry about filling in vacant places in the row. I will give my method of filling vacant places, and would like to have your opinion of it, whether it is as good as taking plants up and setting them in vacancies. I will give sketch below showing how I filled in the double-hedge row:



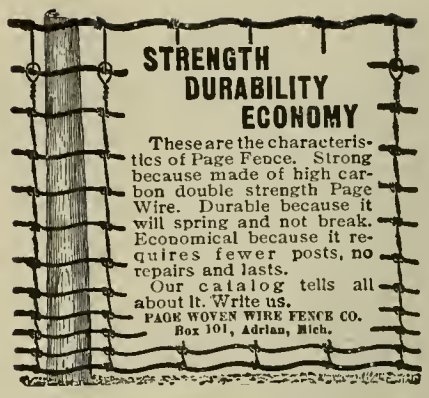
After the Runner Plants Grew

The mother plant at each end of the vacant spot was allowed to make an extra runner which I layered straight in the row to fill in the center of row, and I let the other two runners from the mother plants extend down the row, filling the outside of row. I have filled in places in the single-hedge rows ten or twelve feet long by layering the runners straight in the row from each end of the vacant space, and the plants seem to be as large and thrifty as the others.

2. When is the best time to apply wood ashes, and how much to the acre?

Yours is an ideal way when the vacant places are such that the runners from the mother plants will come together. In The Strawberry suggestions we referred to long-distance vacancies, where it was impossible to have the runners fill in.

2. The best time to apply wood ashes is in the spring just after the ground has been broken up. Forty to fifty bushels per acre would be enough. Scatter them very evenly and work thoroughly into the soil before setting the plants. If your


STRENGTH
DURABILITY
ECONOMY
These are the characteristics of Page Fence. Strong because made of high carbon double strength Page Wire. Durable because it will spring and not break. Economical because it requires fewer posts, no repairs and lasts.
Our catalog tells all about it. Write us.
PAGE WOVEN WIRE FENCE CO.
Box 101, Adrian, Mich.

AGENTS WANTED. Profitable work introducing our worthy goods into your own community. Employ all or part time selling monuments. Special inducements. Do your friends a favor and make some money. Investigate this liberal offer at once. Make the winter count.
MOORE MONUMENT CO., Dept. 51, Sterling, Ill.

POWER SPRAYERS

The most complete line built. 16 styles—meet every possible requirement. All kinds of spraying accessories. Send for catalogue and prices, stating your requirements. Mention this paper.

Wallace Machinery Company
CHAMPAIGN, ILLINOIS

We wouldn't say so if we couldn't prove it.

THE
Underwood

Typewriter

is the one real visible writer which has been unquestionably proved to be dependable under all conditions, adapted to all classes of work, and free from experimental defects.

Underwood Typewriter Co.
31 State Street
DETROIT, MICHIGAN.

ground is a black loam or a stiff clay do not use the ashes, but if sandy or sand-loam, the ashes will aid greatly in coloring the fruit and in increasing the crop.

⚜ ⚜

R. S. T., Susquehanna, Pa. What varieties of strawberries will stand frost best?

2. I have found a few of the white grubs in my new strawberry bed, but have not seen any signs of them for three or four weeks. Am I rid of them, or will they appear again next spring?

3. We have found a few grubs on a piece of potato ground which we would like to set to plants next spring. Will it be safe if it is plowed late this fall?

As a general rule, one variety of plants will stand about as much frost as another. Usually a pistillate variety has a hardier bloom than a bisexual, which is due to the fact that the flower of the pistillate varieties contains no anthers. We find the Warfield, Crescent, Tennessee Prolific, Pride of Michigan, Dornan and Mark Hanna good, safe varieties to set where there is danger of frost during the blooming season; but they are not frost proof by any means.

2. If the grubs have ceased working upon your plants so early in the season it is quite likely that your soil contained only a few of them, and that these few have been devoured by moles or by other animals that feed upon the grubs.

3. Your ground that has been in potatoes, and where you have noticed grubs, should be broken up at once and allowed to remain in broken condition during the winter. This will aid greatly in destroying what few grubs remain.

⚜ ⚜

L. M., Eugene, Ore. I have a piece of ground near the house with quite a little small gravel in it, but I could give it more attention, it being handy, and probably irrigate, if you think it advisable. Also have soil with no gravel but not so convenient.

2. What is your advice in regard to turning under sand vetch as a fertilizer?

Our neighbor picked six boxes of fine berries from a small patch of plants the latter part of September.

If there is plenty of soil to make a good body for the roots to feed from, the small gravel is not objectionable. As a rule, berries color up highly in such soil as you describe. Of course, if the gravel is very coarse and covered with but little soil, we should prefer the piece of ground that is free from gravel, even though it be not so convenient to the house.

2. All vetches belong to the legume family, and there is no question but the sand vetch will improve the soil. Any vegetative growth turned under improves the soil by furnishing humus and improving the mechanical condition of the soil. This is particularly true of all legumes, which add nitrogen as well as humus.

We have been enjoying some late berries ourselves. Some plants which came to us from France yielded some delicious berries in September; so your neighbor is not ahead of us in that respect.

⚜ ⚜

E. D. G., Rochester, N. Y. I mowed my beds at close of fruit season, loosened up the straw mulch and waited two or three days, which were sunny and hot, then I set fire but they would not burn. I waited a few days more and tried again—the weather dry and clear all the while—but the fire would only progress a very little way and go out. I attempted the third time to burn them off after the new growth had made quite a start, but still failed. We had only very moderate and unsteady winds at any time during the spell. I think with a stiff wind I might have succeeded. How do you think it would work to spray with kerosene oil, in such a case, and then set fire immediately?

2. I set propagating rows five feet apart and having naturally good soil and this well fertilized, I have complete mats of plants almost five feet wide. They would have run across the lines had I not kept them apart. Although the season has been very dry here, cultivation, hoeing and weeding has produced this great abundance of plants. I raised a fine crop of onions (from sets) head lettuce (transplanted from hot bed) and early peas between these rows early in the season. Now I wish to transplant a lot of these plants next spring and I want to raise a crop of berries next season from this plat. I mean where my propagating beds are. My plan is this: mulch these beds with wheat straw and buckwheat straw at ground freezing, rake it aside in spring, first from one bed, stretch lines where I want single or double hedge rows, according to variety, then take up all plants not under these lines, selecting the best of these to transplant, then bring back the mulch close to or against the rows, as advised in The Strawberry, so we can cultivate between. Now proceed to clear line and dig another bed and so on. I think I have plants thickly enough set to form a fairly good hedge anywhere I may stretch a line over a bed. Do you think my plan may prove practical, i. e., successful?

3. Would you advise digging up the line of mother plants? They were wonderfully large and vigorous but have had a heavy strain, producing so many young plants in a very dry season.

4. How do you apply nitrate of soda? I never have used it, but a friend tells me care must be taken that it touch not the foliage.

Your mulching must have been quite damp on the under side, because we never have had any trouble in getting the straw to burn quickly, or it may be possible that there was not enough wind to drive the fire along. The spraying with kerosene would not be advisable, because if the mulching was damp, the fire would merely take up the top where the oil had come in contact. The better way would be to take a common hay tedder which

ROBUST, STURDY, HARDY

They live, grow, make money for you. Got our catalog? If not, send for it today. Millions of plants, trees, bushes — general nursery stock ready. Free catalog tells all. Valuable spraying calendar in it. Order stock now for fall setting.

Peaches
Pears
Apples
California Privet

ARTHUR J. COLLINS
Box 415, Moorestown, N. J.

Dewberries

One of the most profitable crops the small fruit-grower can raise. Now is the time to plan for next spring's planting. Write for information about plants and culture to

R. D. 1, Box 5 T. H. Smallwood, FORT SCOTT, KANSAS

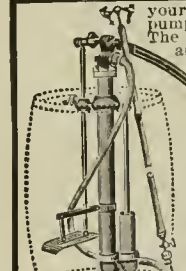
Trees, Plants & Seeds THAT GROW

Best quality. Good bearers. Low prices. Apple 4c; Plum and Cherry 12c; Peach 4c; all budded; Concord Grapes 2c; Forest Tree Seedlings $1 a 1000 up.

GERMAN NURSERIES
Carl Sonderegger, Prop.

Tested seeds very cheap. Freight paid on trees. Catalogue, English or German, free. Write for it today. Address GERMAN NURSERIES, Box 101 Beatrice, Neb.

SPRAYING



your fruit with a good spray pump means dollars to you. The Eclipse earns big profits and lasts for years. We invented the

ECLIPSE SPRAY PUMP

after experimenting for years in our own orchards with the common sprayers. We have it illustrated in our 40-page catalog—send for it to-day—it's brimful of useful and interesting reading for the gardener and fruitman.

MORRILL & MORLEY
Benton Harbor, Mich.

I. X. L. THEM ALL

THIRTY YEARS EXPERIENCE
WE MAKE THE BEST

Steel Windmills
Steel Towers
Steel Tanks
Steel Feed Cookers
Steel Tank Heaters
Steel Substructures
Wood Wheel Windmills
Wood Towers
Wood Tanks
Tubular Well Supplies

WRITE FOR PRICES

PHELPS & BIGELOW WIND MILL CO.
KALAMAZOO, MICHIGAN

would kick the straw up and turn it over so the wind and sun could dry it thoroughly on both sides. If your patch is small then a common fork could be used for this purpose.

2. Your method of taking up plants for next spring's setting from your propagating bed is correct, but it will hardly be possible for you to get a good crop of berries from the plants left in the propagating bed, because when you take up the plants, you are sure to interfere with the roots of the plants which are left for fruiting purposes.

3. No; that will not be practical, nor will it be successful so far as fruit is concerned. The line of mother plants should be left, as these are the plants which will give you the most fruit.

4. The first application of nitrate of soda should be made to the fruiting bed in the spring when growth starts, using forty pounds to the acre. Scatter it by hand along the side of the plants and not on the foliage. The second application should be made just before the buds open, or before the plants bloom, using the same amount and applying it in the same manner, aiming to select days just before it rains. The rain will dissolve it, when it immediately becomes available, and the plants will start feeding upon it at once.

Mrs. R. L., Arenzville, Ill. After raising the first two crops of strawberries do I have to start a new bed?

2. If the plants are cultivated by a hand plow will that be as good as a cultivator?

3. What is paid for picking off buds and blossoms?

4. What time in the morning should I pick berries and how is it conducted? Are there any rules? I wish to do everything in a business-like way and just right.

5. How many quarts can one person pick in a day?

6. Will they have to be watered if the season is dry like this one was?

7. Do I understand that the boxes and crates are to be made; can they not be bought ready to put the berries in?

8. Will plants have to be sprayed and how? I have a hand sprayer with which a bucket of water could be used at a time—would such a one do?

After strawberry plants have produced two crops of berries, it seldom pays to allow them to fruit the third year. After the second crop is picked, the vines should be mowed off, and when thoroughly dry, the entire bed should be burned over. Then the ground should be broken up and sowed to cowpeas or some other luguminous crop.

2. Cultivation can be done about as effectively with a hand tool as with horse cultivators, except where the ground is heavy clay and packs firmly.

3. It will take one man about one-third of a day to pick the bloom from one acre. This would cost about 50 cents.

4. Berries should not be picked in the morning until the vines are perfectly dry. Berries picked when wet with dew will not keep nearly so long as when they are picked dry. Sometimes rain continues and it becomes absolutely necessary to pick the berries when wet.

5. The number of quarts picked each day depends upon the quantity of ripe berries, also upon the person who is picking. We have had pickers who would gather 175 quarts in one day.

6. It is very seldom that it is necessary in this latitude to water plants because of a dry season. There is nothing which will hold moisture so well as intensive cultivation and hoeing. This year we had a drouth of over two months, and our plants came through it in excellent condition, because we cultivated them every five or six days, and hoed them two or three times each month.

7. It always is best to buy your boxes and crates knocked down, and make them up yourself. All crate and box factories will make them up for you as cheaply as you could do it yourself, but the freight will be much more when they are made up than if the material was shipped knocked down.

8. A small sprayer like you mention will do satisfactory work where you have only a small patch. We have made some experimental tests this year. We did not spray at all a trial bed where sixty-five varieties are grown, but in our large propagating beds we sprayed seven or eight times. Where the spraying was done the plants are perfectly healthy, but where the plants were not sprayed there are some signs of rust and mildew. This proves that it does pay to spray.

S. S., Ada, Ohio. Am a fruit and berry grower, but the strawberry is my favorite, and your magazine certainly is a scientific work on that subject. I have learned more from The Strawberry in the past few months than I had learned in the five years preceding. Am glad I have become acquainted with you. Here are a few questions:

1. Have set some plants on potato ground, but the wire worm is bothering them. What is the remedy?

2. Will it be safe to wait until the ground freezes hard enough to bear a wagon before covering the vines?

3. Will it pay to water plants with deep well water that has not caught nitrogen or other elements from the air as rain water does in its descent through the air?

4. Will it lessen the next year's crop of strawberries if fruit is allowed to grow in the fall on the vines?

Potatoes are an ideal crop to grow in advance of strawberries, as the tubers leave the ground in loose and fertile condition. The treatment recommended for the wire worm is fall plowing, the belief existing that the cells in which the worms rest will thus be broken open and the insects perish. Of course, this cannot be done where plants are growing in the ground.

2. If you will read our article in this issue regarding the time to mulch, you will note that through experiments we have discovered that it is best for the plants that they be covered before the ground is deeply frozen. However, it is far better to cover them after the ground is frozen hard than not to cover them at all. The reason for its being better to mulch before the ground is frozen is that there sometimes is a dry time late in the fall, and alternate freezing and thawing when the ground is dry has an effect to lessen the vitality of the plants, often weakening them so that the crop is considerably reduced.

3. There is no moisture that equals rainfall for plant life, but making furrows between your rows and running water from the well through these furrows, will aid greatly in carrying your plants through an extended drought; but even when this is done you must cultivate for a dust mulch so that the moisture in the soil will not escape. Water from your well will dissolve the plant food in the soil as well as will rain water, of course.

4. In many years' experience we have had varieties fruit quite heavily in the fall, but we never have noticed where this made any difference in the crop the following season. As a rule, a variety will fruit in the fall only when weather conditions are very favorable, and then the few berries come from buds that have matured in advance of the others. If these buds did not fruit in the fall, it is more than likely that they would be so far advanced that the heavy winter freezing would destroy them.

JOIN OUR COLONY OF NORTHERN FOLKS

WHY spend another winter in the cold North? Our lands are especially adapted to the strawberry, to poultry raising, to truck growing. Markets close by. Cheap rates to Eastern cities. Work for all. Easy terms.

Honest Men Helped to Homes

Free Schools. Free City Lots. Free Fuel

Free from malaria, mosquitoes and epidemical diseases. Grand opening in January, 1907. Special excursion rates to this place. Address

1906 COLONY COMPANY
(WAUGHTEL)
FOLKSTON, GEORGIA

How to Get Rid of the White Grub

By John F. Johnson

MY first number of The Strawberry has been received and thoroughly digested, and it is good. It has the right ring. There are so many people who don't know; not only the beginners, but those old in the business. For instance, I should judge by the letters you publish that the white grub is the strawberry grower's greatest enemy, and yet the white grub is the easiest of all to get rid of, if only you know him from his cradle to his grave.

The white grub is the progeny of what is known in this section as the May beetle, June bug and Dor-bug. This beetle lays her eggs in the latter part of May or early in June here in the North. She is very particular where she puts them, always selecting a good feeding ground for her young—the white grub. Her favorite locality is ground covered with a good grass sod. She also is partial to manure that has been recently spread upon the ground or lies in piles. She never puts her eggs in *bare ground* unless attracted by manure. After the eggs are laid the beetle dies. It requires two years for the grubs to grow to maturity and become beetles.

With this knowledge it is easy to plow and to plant with reference to your future strawberry plot. If your land is in grass this year, or if you have land on which you have put manure in the spring, that land is well stocked with grubs.

Next spring they will be one year old. Plow your land this fall, or next spring, *before the beetles lay their eggs*, and they will not lay them there.

Don't put on fresh manure. If you use manure, spread it in the fall. It will then become leached or so old that it will not attract the beetles. Plant the ground with any hoed crop you choose, except strawberries. Good clean culture will put the land in good condition to plant strawberries the following spring, when the grubs will have all changed to beetles and left the field.

There is no extra trouble in doing this, as it is quite necessary that sod land be planted to hoed crops one year to fit it for the berry crop.

Commercial fertilizers may be used at any time.

Please let your people know this and they will bless you.

Northboro, Mass., Sept. 22.

We always have advised putting on manure late in the fall or during winter, and by spreading the manure out thinly exposes the young grubs to freezing, also to the attacks of birds and fowls; and we agree with Mr. Johnson as to manuring and growing some cultivated crop before setting to strawberries, but this can not always be done. Where fall plowing is practiced there is seldom much damage done by the white grub. We have been growing strawberries on a very large scale for more than twenty years, and seldom ever lose a plant by the grub.

Our correspondent's enlightening article on the white grub and the way in which to prevent his serious depredations places us and our readers under great obligations to him. Prevention always is the better "remedy" in whatever line of work we may be engaged, and we are sure the suggestions made by this correspondent will result in largely reducing the ravages of the white grub—at least among Strawberry folk.

But the cure of the white grub, once he gets a start and is actually at work in the patch—there's the rub! And notwithstanding the protest of a Pennsylvania reader, there is no help for that situation save to get the pest out of the field or patch by killing them. This Pennsylvania member, W. W. Franklin, of Corry, writes us as follows:

"The process you suggest of getting rid of the grub is so slow—to dig him up and cut his head off! It puts me in mind of a man that came along peddling flea powder, done up in small packages. On the outside of the package it read, 'Directions within.' A merchant bought a dollar's worth and opening a package found the following: 'Take a flea, prick h im under the fifth rib with a fine needle; that will cause him to open his mouth. Then insert some of the powder between his teeth, and—there's your dead flea!' So I should have preferred a wholesale way of getting rid of the grub. But at least I shall know better in future than to put strawberries on clover sod!"

And then this kindly old friend, with so delicious a sense of humor, adds: "If I were forty years younger I'd like to go into the business. I like it, and there is not a weed in my patch. If only those grubs would let them alone! If I had had the instruction before that now I am getting from The Strawberry, I could have saved myself a lot of trouble."

A Victorious Strawberry Patch

V. F. in November Delineator

THE writer has had seven years' experience in strawberry culture; with such success that she thinks more women with a small plot of ground should raise strawberries. "Doubtless God might have made a better berry than the strawberry, but doubtless God never did;" and it is not often that the market is so overrun that there is not good sale for this luscious berry.

We started with about one-quarter of an acre of good, well-drained, rather elevated land. As plants differ greatly in different localities, we visited the nearest successful strawberry grower and learned of him the best plants and the best methods for our soil. From him we bought our plants and hired him to come and give us the right start. We also read and gathered hints wherever we could on successful strawberry culture; and we worked with such enthusiasm that the very first year we raised a crop noted for size, quality and quantity. Besides having an abundance of the delicious fruit to eat and quantities to give to our friends, on our sales in the near-by village we netted almost one hundred dollars.

The men plowed and gave occasional help, but the most of the work was done

GROWING STRAWBERRIES FOR A LARGE MARKET

100 LBS. FENCE WIRE, $1.25

No. 14 Gauge Painted Wire Shorts, 100 lbs., $1.25; No. 14 Gauge Galvanized Wire Shorts, 100 lbs., $1.40; Other sizes at proportionate prices. Galvanized Barb Wire 2 and 4 point, per 100 lbs., $2.50; "BB" Galvanized Phone Wire, per 100 lbs., $2.40; Annealed Wire, per 100 lbs., $1.90; Graduated Diamond Mesh Galvanized Fencing, 24 ins. high, per rod, 20c; Galvanized Poultry Netting, per 100 sq. ft., 40c; Indestructible Steel Fence Posts, the best manufactured, each, 35c. Everything in the line of Wire and Fencing for all purposes. Now is the time to buy. These prices are for immediate action. Ask for **Free** 500-page Catalog. No. B. A. 733 quotes lowest prices on staple farm supplies of every kind; also offers furniture and household goods from **Sheriffs' and Receivers' Sales.**

Chicago House Wrecking Co., 35th & Iron Sts., Chicago

Better Fruit

A Fruit Journal devoted exclusively to commercial fruit growing. Articles on up-to-date methods by able and successful men. Methods of the West, famous as producers of fancy fruit and world renowned as high-price getters

Subscriptions, $1.00 per Year

Sample copies mailed on request

BETTER FRUIT PUB. CO., HOOD RIVER, ORE.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

Make More Money on Fruit Crops

Everyone who grows fruit, whether a large commercial grower, or one who has only a few fruit trees, a berry patch or a garden, should be interested in knowing how to get the most profit from his crops.

THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

is the only magazine in America which is devoted exclusively to the interests of those who grow fruit. It is handsomely illustrated, and contains from 36 to 76 pages each month. It tells all about fruit of all kinds—and nothing but fruit—how to market, how to pack, cultivate, spray, prune, how to MAKE MORE MONEY from your crops. Sample copy will be sent free. Regular price is a dollar a year, and each subscriber is entitled to a choice of any one of our series of ten "Brother Jonathan" Fruit Books—the best in existence.

Three Months Free

We are so confident The Fruit-Grower will please you that we will send it to you three months absolutely free if you will mention paper in which you saw this advertisement. If, after three months, you like the paper, we will make you a special offer for twelve months more. If you don't like it, notify us and we will take your name off the list. The three months will cost you nothing. We offer Cash Prizes for new subscribers—write for particulars. Write your name and address in blanks below and mail to **Fruit-Grower Co., Box B, St. Joseph, Mo.**

FRUIT-GROWER CO., ST. JOSEPH, MO.

I accept your FREE three month's trial offer. At end of three months I will either pay for a year's subscription or notify you to stop paper. In either event there is to be NO charge for the three month's trial.

Name_____

Route or P. O. Box Number_____

Town_____ State_____

by one woman, with a girl or two to help in picking time.

The carefully selected plants were set as early as possible in the spring in ground as rich as we could make it. The weeds were kept down, and the rows of plants thoroughly cultivated until autumn. The first spring the blossoms were picked off and no fruit allowed to mature, in order that the plants might be perfectly developed.

Late in the autumn, when the ground first froze hard, a slight covering of straw was given to protect the plants throughout the winter and keep the berries clean when ripened. Then there was no more to do until the next spring, when we slightly removed the straw where thickest to let the plants push through.

But there was indeed plenty to do when the season arrived, and bushels and bushels of large, clean, luscious berries began to appear.

By setting early varieties on a southern or eastern slope, and late varieties on a northern slope, the season may be much prolonged. But the main thing is to find the varieties that do the best in one's own locality.

May women who need outdoor exercise and that excellent thing, a replenished pocketbook, try a strawberry patch and be as well satisfied with the results as we were.

⚜ ⚜

THE other day a neighbor and his son were sent into eternity in an instant by the explosion of the boiler of his steam engine used in his farm operations. If we had a list of all such similar tragedies for the season of 1906 what a grewsome record it would be! And why should we have such disasters at all, in this age of gas and gasoline engines and with the day of free alcohol at hand? After January 1, 1907, every farmer may make his own alcohol, provided the government attests the fact that it is denatured; that is, made non-drinkable by the addition of some poisonous substance. Gasoline engines are now run at such an economy of fuel as to be quite inexpensive, and if the farmers and gardeners will engage in a cooperative still in their respective neighborhoods, and enter upon the manufacture of alcohol, the vast amount of waste that annually receives no profitable attention may be turned to good account. Light, heat and power may be generated—is now generated in European countries—from this waste; and it is the best and altogether the most satisfactory light and fuel known.

⚜ ⚜

FARMERS are getting the "reading habit," writes Mrs. Linda W. Loy of Effingham, Ill., in Agricultural Advertising. They read more and more and better books and papers each year. Yes, and they read the advertisements. They realize that many of the best and most useful things they have were brought to their knowledge through the medium of the advertising columns of their magazines and papers. . . . And farmers are fast learning that advertising is a game that they can play with marked success, and they are beginning to play it freely and with perfect confidence. They are reading the old school maxim in a new form thus: "We must advertise! We must advertise! or we must perish by our own indolence and indifference!"

⚜ ⚜

With the Funny Folks

IT was at the close of the wedding breakfast. One of the guests arose and, glass in hand, said:

"I drink to the health of the bridegroom. May he see many days like this."

The intention was good, but the bride looked up as if something had displeased her.—Tit-bits.

AN Irishman slept in the same room one night with a Negro. His face was blackened during the night by a practical joker. Starting off in a hurry in the morning he caught sight of himself in a mirror. Puzzled, he stopped and gazed, and finally exclaimed,

"Begorra, they've woke the wrong man!"

THE climate here is salubrious, isn't it?" inquired the tourist.

"Say, mister," replied the native, "jest write that there word down fur me, will yer? I git tired o' swearin' at this climate in the same ol' way all the time, an' anything new in that line tickles me"—Catholic Standard and Times.

A YEAR or two ago," said a young man to a friend, "I spent a few weeks at south coast watering-places. One day I saw a machine which bore the inscription, 'Drop a penny in the slot, and learn how to make your trousers last.' As I hadn't a great deal of money I thought an investment of a penny to show me how to save the purchase of a pair of trousers would be small capital put to good use, so I dropped the required coin in and a card appeared. What do you suppose it recommended as the way to make my trousers last?"

"Don't wear 'em, I suppose."

"No."

"What did it say?"

"Make your coat and waistcoat first."

THE caller was angry, and even belligerent. "I want an explanation and an apology, sir," he said. "In your paper this morning you had an account of the wedding at the Smithby's last night, and you spoke of 'the jay that attended the happy pair as they went to the altar.' Now, sir, I'm the"—

"Not at all," said the editor calmly. "I wrote it 'joy.'!"—Chicago Tribune.

With Your Name Printed on it

Just the Thing for Valuable Papers

FREE FIVE THOUSAND POCKET BOOKS

I AM GOING TO GIVE THEM AWAY

CHAS. E. ELLIS

I PUBLISH the greatest Farm Paper in the World—**"The Metropolitan and Rural Home."** Before I was a publisher I was a farmer. Now I am intensely interested in both. I believe farming and publishing are the greatest and best businesses going. Sometimes I even think farming beats publishing.

And now—just to show you how I feel toward farmers, I want to give five thousand of them each one of these Pocket Books If you are a farmer I want to give you one. I want to give you one of these Pocket Books so you can show it to your friends and say: "My friend Ellis, publisher of the greatest Farm Paper in the world, gave me this." Then you and your friends will think of me and my paper—The Metropolitan and Rural Home—that goes to half a million farmers every month—and you will say among yourselves "That Ellis must be all right. I want to read his paper and see what he says in it." These Pocket Books I am going to give you are made from genuine Rubber Covered Cloth. They are just the thing to carry valuable papers—such as notes, contracts, fire insurance policies, weight receipts, etc., as well as money. They fold up flat and fit your inside coat pocket—just the kind of Pocket Book every man likes to own.

Now you don't pay anything for the Pocket Book. It's **FREE.** I send it to you postpaid and don't ask you a cent. But to show that you are willing to be just as liberal with me as I am with you, I want you to send me 20 cents for The Metropolitan and Rural Home for a year. Now don't say, "that's what I expected." Wait a minute and read the rest. You haven't got to the most liberal part of my offer yet. Read this announcement all through. I would do as much for you, if you were me and I were you. If you will do as I ask, I will **have your name and address printed on the inside of your pocket book,** so if it gets lost, it will be returned to you at once. When I send it to you, I will also send you some sample copies of The Metropolitan and Rural Home and I will continue to send the paper to you for Three Months. Then, if you don't like it, just say so and **I'll send you back your 20 cents** and stop your subscription and you may keep the Pocket Book for your trouble. That gives you the paper three months **FREE,** to say nothing of the fine Pocket Book. Now—what do you think of that for an offer?

A GREAT BIG ILLUSTRATED MAGAZINE—FREE

Mind you, The Metropolitan and Rural Home is a great Big Magazine Paper. It is printed in clean, plain type on nice paper and there are lots of pictures every month. I just mention these things because they are extras—it's the stock, dairy and farm news, and good stories, that make my paper the best farm paper in the world.

If you don't tell me at the end of three months to stop the paper, of course, I'll keep your subscription—enter your name as a regular subsbriber and send you The Metropolitan and Rural Home for a full year.

Now I'm sorry I haven't got more of these Pocket Books, but there are only 5,000 to give away, so you'll have to hurry a little if you want one. They are such good Pocket Books that they'll go like wildfire and you ought to stop right here, fill in the order blank **and mail it to me at once,** so as to be sure to get one of these Pocket Books. I put that blank in here so you needn't hunt for paper and ink unless you want to. Use a lead pencil, fill out the blank, enclose twenty cents (stamps or silver) and mail it to me just as quickly as you can. Do it right away, so the Pocket Books won't be gone when I get your subscription.

CHAS. E. ELLIS, Publisher. 22 North Williams Street

Metropolitan and Rural Home Subscription Department 264 New York City

---

FREE POCKET BOOK BLANK

SIGN THIS AND SEND TO ME AT ONCE

C. E. Ellis, New York. Dear Sir: Send me **The Metropolitan and Rural Home** for a year unless I tell you to stop it at the end of three months. Also send me one of those **FREE** Pocket Books with my name printed on it. I enclose 20 cents (silver or stamps) which you are to return to me if I tell you at the end of three months to stop my subscription to your paper. Yours truly,

Sign..... Address.....

Name Town State

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN Western Representative
315 Dearborn St., Chicago, Ill.

S. E. LEITH Eastern Representative
150 Nassau St., New York City

Address Communications and make all Remittances to The Kellogg Publishing Co., Three Rivers, Mich.

SUBSCRIPTION PRICE:

United States and Canada - - $1.00
Foreign - - - - - - - 1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

NOVEMBER, 1906

NOVEMBER is the month of the harvest home and of that extraordinary American institution, Thanksgiving Day, with its hallowed memories reaching back to the bleak and cheerless time at Plymouth Rock, and inro the less remote associations of our own days that are gone. It is fitting that this month The Strawberry should present its readers some special mark in celebration of the time, and we believe that the beautiful cover hat adorns this issue will challenge any other that may appear in beauty and significance. The artist's pen and brush have vied with the photographer's camera in producing features for this cover, and we think both have done themselves proud. The beautiful scene in the background is from the strawberry field of John Rucker, and is laid in a lovely valley of northern New York, not far from Buffalo, at the little town of Boston. To our readers one and all, we cordially extend the compliments of the season, and wish them a joyous day of Thanksgiving.

CERTAINLY, The Strawberry finds in the good words and substantial testimonies that come to it in each mail abundant reason for joy at this time. And when we get a letter that says, "You have made it possible for me to achieve success in the strawberry field," or one that cries out, "If only I had had The Strawberry to help me years ago!" we are made to feel that indeed our work is not wholly without benefit to our fellows and to find in that fact deep and lasting satisfaction. And then the way in which The Strawberry family circle is expanding! Nothing quite like it ever has happened before, and the rate of expansion appears to increase with its growing size. Many thousands have joined the happy circle during the past ten weeks, and every day's mail brings many new friends within its sphere.

NOW that the season is ended, we desire to announce that after November 20 no more photographs will be accepted in our prize competition. So let everybody who has a fine photograph of his field or patch get it here at once, or, if the frost has not as yet destroyed the natural beauty of your patch, have a photograph taken yet and send it along so that it may reach us by the 20th of November. Prizes will be awarded and the cash sent to winners as near to December 1 as possible. And we thank our friends for the beautiful pictures and congratulate them upon the success these photographs show them to have made in the strawberry field. In this connection, we wish to call attention to the fact that the beautiful scene on the title page of this issue is taken from the field of Theodore Detwiler of Brookville, Ohio.

WHAT single feature in the domestic economy is more important—contributes more to comfort, pleasure and good feeling all 'round—than good lighting? Consider that for a moment. Here you are, all about the evening lamp, each member of the family reading his favorite book or paper. What misery in a poor, or weak, or ill-smelling lamp! Nobody can enjoy a moment of real pleasure, and everybody feels out of sorts. Now let some genii bring in a clean, sweet, brilliant, yet soft, light, and set it down in the midst of that family group—say, what do you think the answer to that question would be? Well, that's just what happens, without any genii, when you bring in the Angle Lamp. Everything else in the way of a "light" fades at once into comparative gloom. We can't tell you here all the blessings that lamp brings to the user, nor why, but the Angle Manufacturing Co. that makes this modern wonder of brilliancy, safety and economy will tell you all about it if you will write them at 70-80 Murray street, New York, and ask for Catalogue No. 54. Don't stand that old lamp another night. Write them now.

THERE have been times when we didn't have any particular use for a pocket book, but the American farmer and fruit-grower has been having the time of his life recently, and a good strong pocket book is a real necessity now. We speak of this because one of our advertisers offers you such a bargain in pocket books this month that you can hardly afford to neglect the opportunity. The Metropolitan and Rural Home is filled to overflowing with practical agricultural advice and interesting reading, and with the pocket book the offer made is peculiarly inviting.

OUR readers who became acquainted with the Gardner Nursery Co. of Osage, Ia., last season will be glad to see the handsome advertisement of that company in this issue of The Strawberry. The reputation of this company for square dealing and good goods is such that a customer once is almost sure to be a customer all the time. The evergreens of this company and the hardy sweet chestnut trees propagated by them have a name the country over that instantly suggests beauty and quality when they are mentioned.

ANOTHER old friend is Carl Sonderegger of the famous German Nurseries at Beatrice, Neb. Mr. Sonderegger is of the solid German stock that finds greatest pleasure in serving his customers with the very best that careful selection, intelligent breeding and thorough cultivation may combine to produce. That is why his business has grown from year to year, until today it is one that commands the trade of substantial horticulturists all the country over. When you write to Mr. Sonderegger mention The Strawberry; it will please him and do your favorite magazine a good turn.

AND the Chattanooga Nurseries folk are with us again, with a bright new announcement of their business. The campaign for 1906-07 is a great one, and the strong nurserymen who find the columns of The Strawberry fecund in business returns, are better prepared than ever to supply our readers' wants. A note addressed to this company at Box 10, Chattanooga, Tenn., will bring immediate response to Strawberry readers.

EDUCATION is the keynote of the present generation. Practical education—the fitting of each one for some special work in life—is one of the most remarkable developments of the time. The introduction of labor-saving machinery has brought about marvelous changes in the social and economic life of the people. The boy is no longer "bound out" to learn a trade; indeed, it is becoming each year more difficult to learn a trade, in the way our forefathers were used to do, and this at a time when the world demands higher perfection than ever before in some special department before the youth of this day may hope to secure position and achieve success. In view of this revolutionary change, how important it is that educational institutions are now established that fit the individual for his chosen work. It is with no little satisfaction, therefore, that The Strawberry calls attention to the several advertisements that appear in this issue of practical schools which aim to prepare the boy or girl so that each may be independent and find a way to a successful career.

THE Three Rivers Business College is one of these, and of its merits and advantages we spoke in the October issue. This month we also present that long-established and worthy institution, the Commercial Correspondence Schools of Rochester, N. Y., to the consideration of our readers, confident that any transactions had with that well-known educational establishment will be in all respects satisfactory. And what may appear unusual to many is the advertisement in this issue of the Chicago School of Bricklaying, which teaches the young man to do this important work with skill and insures him employment at a remunerative wage; not only this, but puts him in the way of progress and the upward climb. How many young bricklayers have become the master-contractors of the world? The young man without an education that fits him for some special work is lost, in this day of specialization, of stern demand and of fierce competition. Whether he lays bricks, keeps books, runs a typewriter or builds ships or locomotives, the only way to success is to know how so well to perform his alotted task as to bring his services into demand.

Selling Hides to Butchers is Poor Economy

MANY a man has a cow hide or a horse hide which he sells for almost nothing. **THIS IS POOR ECONOMY.** Let him send the hide to us, place with us the same money he spends in purchasing an ordinary cloth overcoat or robe to last one and perhaps two seasons, and we will manufacture for him a FUR COAT OR ROBE which we guarantee will not wet through, will last many years, and for durability and warmth cannot be equalled.

Do not think it is necessary to send us black hides; an even-colored red makes a fine robe; a horse hide makes a light robe—any color looks well. In fact, you will scarcely recognize your red, brown, gray, spotted, white and brindle hides after they have been through our process and the hair thoroughly washed and scoured bright. Don't sell your hides to the butcher; you are practically giving away a coat, robe or handsome floor rug.

When You Furnish the Hide

WE can tan and manufacture a robe like this from a cow hide or a horse hide and make **FREE** a pair of Mittens from the trimmings. The robe will be soft and pliable, as warm as a Buffalo robe and lighter in weight; lined with the best green plush lining and heavy green felt border.

PRICES: 40 lb. Hide and under, $7.00 40 lb. to 70 lb. Hide, $7.50
70 lb. Hide and over, $8.00

We Will Tan and Manufacture Your Hides and Skins into Anything Desired

Calf, Goat, Dog, Colt Skins, etc., are tanned by us and made into Floor Rugs with felt lining and fancy border at prices according to size of skins and linings desired. We make Mittens and Gloves from small skins at very reasonable prices and do all varieties of Mounting and Taxidermy work.

We Furnish the Skins, Manufacture to Measure,

and Sell by Catalog

Galloway Coats, Robes,

Mittens, Gloves

FUR-LINED COATS AND OTHER FURS

Our Guarantee:

WE GUARANTEE that the hides we tan and the garments we make, either from the hides you furnish us or from our own, will be soft and pliable, and will never get hard; will be moth-proof, waterproof and more nearly cold proof than any other goods upon the market.

OUR Customers are Farmers, Physicians, Automobilists and others of this class who desire fit, warmth, appearance and durability. Our fur coats and robes are not made from pieces, but cut to your measure out of whole hides.

To Our Readers and Patrons:—

We are intimately acquainted with the National Fur and Tanning Co., its management, the quality of its own goods and the character of the work it turns out for others. We can most highly recommend its products and the honesty of its management.

THE KELLOGG PUBLISHING CO.

WRITE FOR OUR FORTY-PAGE CATALOG

The National Fur & Tanning Company

Three Rivers, Michigan

When You Furnish the Hide

WE can tan and manufacture for you a coat like this from two small hides or from one large hide, lined with the best padded and quilted satin body lining; Lusterine or "Iron Cloth" sleeve lining, edges of coat bound with Mohair Braid, black Ebony Olives and Mohair Cord Olive Fastenings; leather shields at arm holes and Patent Wind Protectors at wrist,

PRICES:

Ladies' or Gents' Long Coat	-	$11.00
Ladies' or Gents' Short Coats	-	9.50
Children's (Boy or Girl)	-	9 00

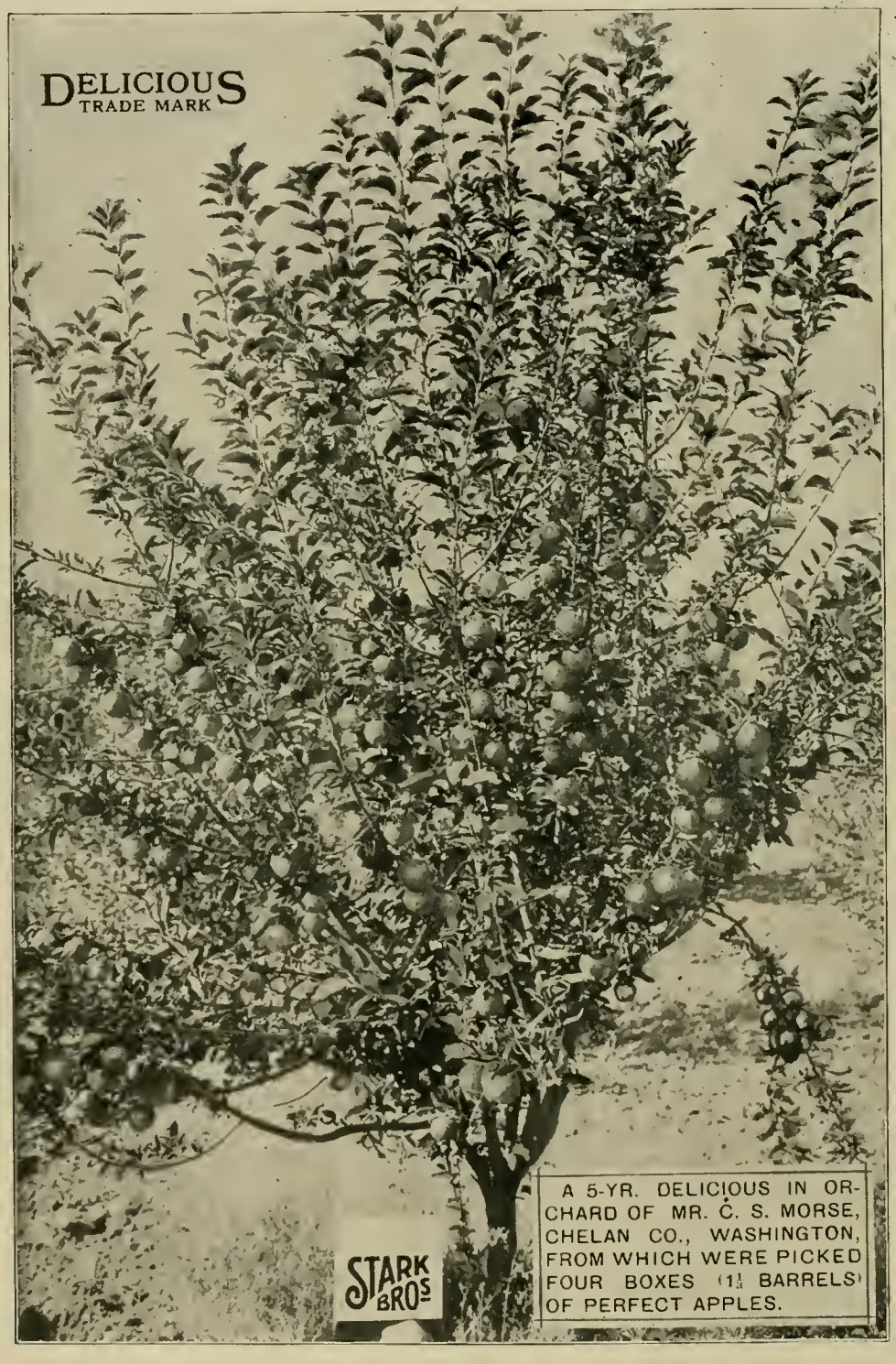
Grow Apples that PAY the Producer and Please the Consumer

KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON, BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inferior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

For 82 Years **STARK TREES** have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."


DELICIOUS
TRADE MARK
STARK BROS
A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1⅓ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk I I, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

THE STRAWBERRY

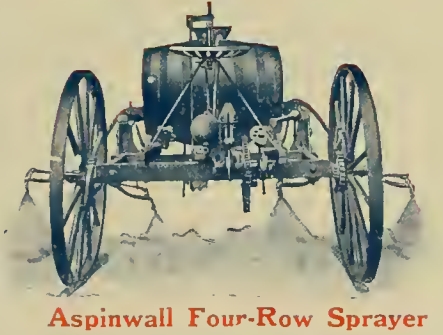
Xmas 1906
"The Lord might have made a better fruit than
the Strawberry ——— but He never did."
PUBLISHED BY
THE KELLOGG PUB. CO.
THREE RIVERS, MICH.

Aspinwall Potato Machinery

Aspinwall Potato Cutter

Has stood the test of time

Aspinwall Potato Planter No. 3



Aspinwall Four-Row Sprayer

Aspinwall Potato Sorter

and has the highest possible endorsement of thousands of successful potato growers the world over. We have made a specialty of the manufacture of Potato Machinery for the past twenty-five years; know the requirements and how to meet them.

With Aspinwall Machines the cost of producing a crop of potatoes is reduced to the lowest possible point, greatly increasing the profits. If you are raising potatoes for market you cannot afford to do without an outfit of these time and labor-saving tools.

We are acknowledged headquarters for Potato Machinery the world over and make a full line, consisting of

Cutters,
Planters,
Sprayers,
Diggers,
Sorters.

Our Free Booklet, "Potato Culture," gives full and complete instructions for handling the potato crop; preparing the soil; planting, spraying, and harvesting. Every potato grower should have a copy of this work. It is yours for the asking.

Aspinwall Mfg. Co.

215 Sabin St.,
Jackson, Mich., U. S. A.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume I No. 12 Three Rivers, Mich., December, 1906 $1.00 a Year

VOLUME ONE of The Strawberry is concluded with this issue, and the occasion properly may be taken advantage of to review very briefly the past, and to forecast quite as briefly the work of the coming year. We need not say that the extraordinary success which has met this periodical is matter of gratification, not entirely unmixed with surprise, on the part of its publishers. That it really fills that proverbial "long-felt want" it was given us to know as soon as the first issue was in the hands of the public. From Maine to California, and from the Florida keys to Puget Sound, came instant recognition of the youngster as the prophet of a better day in strawberry production and the guide, counselor and friend of every man and woman and boy and girl engaged in the delightful and satisfying work of growing strawberries. Some wrote that it was too good to last. "It's fine, splendid, just the thing---but---ah---can--can you keep it up?" they said, just like doubting Thomases will. Well, now let us ask in return, Have we kept it up? How does The Strawberry of December, 1906, compare with the issue of January, 1906? We believe that the doubting Thomas has no longer any good reason for doubting.

THIS illustration shows a Dornan plant, measuring 22 inches across. This plant was set last spring by Fred M. Burton of Halifax, N. S., and is a fair illustration of the success achieved in that land of the North, when only first-class plants are used and first-class cultural methods are rigidly observed

But there were not many doubting Thomases, and we must say that in all our experience and observation we never have known a publication that enjoyed the hearty good will and the warm words of commendation that it has been our good fortune to enjoy during the year just closing, and if ever there was a moment's doubt in the publishers' minds it must have vanished as quickly as it came in the sunshine and glow of such friendliness and helpfulness as it has been our happy lot to receive at our readers' hands.

The Strawberry stands not only for more strawberries and better strrawberries; for better methods in growing, packing and marketing them. It stands for good morals and clean literature, for home influences that are uplifting and for business methods that can endure the most rigid scrutiny. In its advertising matter it has endeavored to be as choice as in its reading matter. In the initial issue of The Strawberry we promised that no liquor advertising, no "get-rich-quick" advertising, no patent-medicine advertising, should be allowed in the pages of The Strawberry. With respect to the last-named we have had occasion to congratulate ourselves, as well as our readers, upon that plank in our advertising platform. The revelations which have been made within the past few months concerning many of the most popular and widely used "patent-medicines" show them, in many instances, to be composed of poor whisky for the most part; that others are composed of opium in various forms, and that children's remedies are found to contain sufficient poisonous matter to ruin the health of innocent little ones, often proving fatal to them. We need not attempt to characterize the men who engage in this nefarious traffic. If it were merely fraudulent, it were bad enough; but to attempt to demoralize a whole people by palming off on men and women "sure cures" composed of whisky and opium; to feed little babes rank poisons in the name of soothing and harmless remedies—men who do that are worse than the murderer who slays his fellow in cold blood. We are indeed glad that The Strawberry never has encouraged these physical and moral destroyers by permitting them to reach the eyes or the pockets of its readers through its advertising columns. It hardly will be necessary to renew our pledge in this respect.

As a demonstrator of practical methods in every department of strawberry production The Strawberry has been accorded first place by the consensus of opinion of the strawberry world. Old growers have written us that they had learned new and better ways of doing things—ways that had led them to win success in 1906 where failure had been their portion in other years in which the same conditions existed. Beginners have written us that the result of their first year's work had been little short of the marvelous; and they attributed their extraordinary achievements to the fact that they had followed the methods laid down by this publication. The Correspondence School department has been in very truth a school of instruction

many a pupil has entered upon a successful career as a result of his attention to the details taught therein.

The whole strawberry world has felt the influence of this magazine's devotion to that interest. We say this in no boastful spirit; indeed, we do not say it of ourselves at all—it is the unanimously expressed sentiment that comes to us from friends at home and from friends over sea.

But if we have accomplished the winning of these kind words in the year that is past, we have plans that surely will win for The Strawberry even warmer words of encouragement and cheer in the year to come. There are many larger and better things promised for the year to come than we have been able to secure in the past. It takes time to get a magazine like The Strawberry under way; to lay its course, to get in touch with the infinite ramifications of the interests it represents. We shall make no attempt to outline the good things that are to reach our readers in 1907—we don't know half of them ourselves. But we think that the steady improvement of the magazine since the day of its birth is a guarantee that the same upward course will be followed.

One feature which will be of interest and value to all will be "The Autobiography of a Strawberry Grower." This story will give in helpful detail the ups and downs of one who began as an amateur strawberry grower and became the best known grower in his state, and so famed as an expert as to become the head of one of the most remarkable horticultural institutions in the world.

Another feature will be a series of "lectures" by the head of the Correspondence School. This series will begin with the January issue, and will deal with "The Preparation of the Soil," the foundation of all successful strawberry culture. In following up this course, we shall aim to anticipate each step of the grower in his work by at least two months, so that every grower,—he whose home is under tropic suns, or on "the Coast," or he whose bed of strawberries hibernates under the Northern snows—so that every grower shall be fully advised in ample time to prepare his work along lines that scarcely could fail of success.

A member of the staff of The Strawberry, as this is written, is in the strawberry fields of the South, gathering data that we expect to be of large value to the general work and of especial value to that section of the country whence strawberries are shipped by the thousands of carloads. Concerning everything that pertains to the work this magazine is alert, ready and anxious to serve.

For the beautiful illustrations which have been so important and helpful a feature of the magazine we have to thank our readers for the photographs so generously sent us, and we trust that even more of them are to come to us during the coming year. How great a stimulus those illustrations have been we may never know, but we are sure they have encouraged many a grower to better methods in his work and inspired many a one to consider seriously the growing of strawberries as an occupation and a business.

With thanks which we cannot express in words for the gracious reception you have given The Strawberry and all the courtesies we have had at your hands, we close the first volume with heartiest wishes to all for "A Merry Christmas."

THE ANGLE LAMP

Is not an improvement on the old style lamp but an entirely new method of burning oil which has made common kerosene (or coal oil) the most satisfactory of all illuminants.

And when we say **satisfactory** we mean satisfactory—not an illuminant that merely gives a brilliant light, but one that combines brilliancy with soft, restful, pleasing quality, that is convenient as gas, safe as a tallow candle, and yet so economical to burn that in a few months' use

IT ACTUALLY PAYS FOR ITSELF

The ordinary lamp with the round wick, generally considered the cheapest of all lighting methods, burns but about five hours on a quart of oil, while The Angle Lamp burns a **full 16 hours** on the same quantity. This, even where oil is cheap, soon amounts to more than its entire original cost. But in another way it saves as much—perhaps more.

Ordinary lamps **must always** be turned at full height, although on an average of two hours a night all that is really needed is a dim light ready to be turned up full when wanted. **A gallon of oil a week absolutely wasted,** simply because your lamps cannot be turned low without unbearable odor. All this is saved in The Angle Lamp, for whether burned at full height or turned low, it gives not the slightest trace of odor or smoke.

You should know more about the lamp which for its convenience and soft, restful light might be considered a luxury were it not for the wonderful economy which makes it an actual necessity. Write for our catalogue 54 fully explaining this new principle of oil lighting and for our proposition to prove these statements by

30 DAYS' TRIAL

When such people as ex-Pres. Cleveland, the Rockefellers, Carnegies and thousands of others, after trying The Angle Lamp, find it profitable to rip out gas and electric light fixtures, to throw away gasoline and acetylene outfits or ordinary lamps, it is surely worth your while to send a penny postal to find out about it.

Write for catalogue 54 listing 32 varieties from $1.80 up, which gives you the benefit of our ten years of experience with all kinds of lighting methods.

The Angle Mfg. Co., 78-80 Murray St. New York

DECEMBER is the month for balancing up the year's accounts and wiping out "old scores." There are financial old scores, and moral old scores. Wipe 'em all out; life is too short and too precious to be bothered and disturbed by such things. Get your books balanced up before Christmas. If you've an old score against a neighbor or against the world in general, don't keep it on the account book of life a day longer. It's costing you too much. "Keep sweet" is a wise injunction, but you can't do it if there are old scores yet to be settled.

WINTER days are here. An autumn of rare beauty and mildness, ideal in that fine Indian-summer quality that makes winter's approach a joy, has blessed this section of the country, albeit storm and disaster have visited the great Northwest, doing incalculable damage. But winter is here—what shall we do with the days so full of opportunity, so rich in time for reflection and preparation? Let us suggest one thing for our commercial strawberry growers to do—organize! Organize your work, organize your neighborhood with a view to better fruit, organize your district so that in the season of marketing the 1907 crop there will be no bungling, but your fruit will go direct

to the markets where the fruit is desired and where a fair price awaits it. Grow good fruit, pick and pack it under rigid inspection. If you do, the profits are sure.

Use of Commercial Fertilizers in Strawberry Culture

By A. J. Patten

SOME weeks ago a Missouri subscriber who, by the way, grows forty acres of strawberries annually, wrote us asking for an article on commercial fertilizers, saying that little practical information on this subject appeared available, while the problem was becoming one of large moment to every man who grew strawberries for market. This is true, as everybody understands who cultivates his soil intensively. We called upon Professor Patten of the Michigan Agricultural College for an article upon this subject, and the following brief but comprehensive statement is the result. Clear, concise and p actical, it forms a basis for intelligent action for every strawberry grower, no matter in what section of the country, or what his peculiar soil conditions.—Editor Strawberry.

IT is impossible for any man to prescribe the fertilizer requirements of a soil with which he has had no practical experience. There are, however, a few general statements that apply equally well to all soils and all crops.

While there are some fourteen elements found in the soil that are used by the plant in building up its various parts, we know that there are only three, popularly known as nitrogen, phosphoric acid and potash, whose supply in the soil is liable to become so depleted as to be insufficient to longer supply the necessary demands of the crops grown upon it. Or it may be that the supply of these elements in the soil is still large enough to supply the demands of crops for many years to come, but, owing to the form in which they are combined with other elements in the soil, they are very insoluble and cannot serve as food for plants, or at least so slowly do they become soluble they can no longer be reckoned with as sources of plant food. Under such conditions we must, of course, resort either to an artificial supply of plant food or we must use a system of agricultural practice that will unlock the supply of insoluble plant food already present in the soil.

Which method we shall adopt depends largely upon the kind of farming to be carried on: that is, whether quick-growing crops of relatively high market value shall be grown, or slower-growing crops of low market value.

The strawberry crop possesses a relatively high market value, and because of this fact and also because the period of growth and development of the fruit is comparatively short, bringing quick returns for the money expended, and the natural sources of plant food may be largely ignored and the more quickly available artificial manures supplied.

The strawberry plant requires one year of preparatory growth before bearing fruit, and the crop that may be obtained depends largely upon the strength and vigor of plant attained during this period. So, it is desirable that the soil in which the plants are set should be well supplied with the quickly available mineral fertilizers. It is therefore recommended that from 800 to 1000 pounds per acre of a fertilizer made up approximately as follows: three parts acid phosphate and one part muriate of potash, be applied. These are staple articles and may be obtained from any fertilizer manufacturing firm and mixed at home.

The fertilizer should be broad-casted and well worked into the soil before the plants are set. In soils not rich in organic matter (humus) a further addition of 200 pounds of dried blood per acre might prove an advantage in giving the plants a quicker start. In the spring of the year when the first crop is to be harvested an application of 200 pounds of nitrate of soda, sown between the rows and cultivated in, or put in with a drill, will prove successful on many soils. This application should be made preferably after blossoming; later applications have a tendency to soften the fruit and thus injure shipping qualities.

It is a well-known fact that the specific function of nitrogen is to stimulate the growth of stalk and leaves, so this element should be used with some caution, as excessive amounts in the soil are liable to retard the blossoming and fruit-setting process. Phosphoric acid influences the ripening of the fruit, and potash forms the base of the well-known fruit acids; so it would seem that nitrogen is more essential for the development of the plant and phosphoric acid and potash for the development of the fruit.

Reports from many experiment stations in widely separated sections of the country all favor the use of commercial fertilizers for strawberry culture. Conclusions drawn from a few of these are here given.

New York Cornell Experiment Station (Bulletin 189). Conclusions drawn from experiments conducted for three years in cooperation with strawberry growers show for fertilized plants a gain of 2000 quarts per acre.

New Jersey Experiment Station (Report for 1891) reports a gain of 408 quarts per acre, due to the use of 200 pounds of nitrate of soda applied in the spring following a heavy application of phosphoric acid and potash when the plants were set. "The increased yield was due mainly to the increased size of the fruit, the number of berries was apparently but little increased."

Georgia Experiment Station (Bulletin 48) recommends the following formula: four per cent nitrogen, eight per cent phosphoric acid and eight per cent potash, and says: "When the normal formula was supplemented in the spring by a dressing of nitrate of soda, the yield was increased by 200 quarts per acre."

To insure the full benefit from commercial fertilizers the soil should be in the best physical condition possible, for very often the beneficial effect that a fertilizer treatment might have is offset by lack of drainage, improper cultivation, etc. No amount of fertilizer can overcome these physical defects of the soil, and until they have been corrected it is folly to think of using commercial fertilizers. It is not expected that the fertilizer treatment recommended will give equally good results on all soils, but it is given more as a basic formula, and each grower must alter it to fit the particular needs of his own soil.

Agricultural College, Mich.

If "Christmas Gift" Appears at the Bottom of This Page, YOUR Subscription Expires With This Number of The Strawberry

Our Great Christmas Present Offer

WITH this issue of The Strawberry its first year closes, and those of our readers who have had its monthly visits from the first will please take notice that the time for renewal of their subscription is here, as you will recall that it is our plan to discontinue sending The Strawberry when the time paid for expires.

The Strawberry has made a wonderful success, and that is due largely to your generous and loyal support. We have endeavored to merit it, and the letters received from thousands of our friends lead us to believe we have given all their money's worth. We want you to continue with us, and ask that you renew your subscription at once.

Not only do we want your continued support, but we wish your aid to double our subscription list and increase the influence of the magazine. In this connection we have planned to make it possible for you to make some friend a present of an annual subscription to The Strawberry at the nominal cost of 25 cents and what could be more welcome and valuable to one interested in horticulture than the monthly visit of The Strawberry for one full year? The plan is this:

To every subscriber who renews his subscription and sends us the name and address of the friend to whom he wishes to make this **Christmas Present**, and encloses $1.25, we will send The Strawberry for one year, both to the old subscriber and to the friend whose name he sends us. It is to be understood that the name sent us for the **Christmas Present Subscription** shall be one not now on our list.

It is one of the principles of The Strawberry that it treats every subscriber alike. In keeping with this invariable rule this offer will apply to everybody now on our subscription lists. That is, any subscriber, by sending us $1.25 and the name of a friend not already on our list, may have his own subscription advanced for a year from the time now paid for and make this **Christmas Present** to a friend.

If The Strawberry has proved of value to you in its first year, we can assure you that it will be doubly so in the year to come - and you know we keep our promises. May we not have your renewal and the name of your friend at once?

If "Christmas Gift" Appears at the Bottom of This Page YOUR Subscription Expires With This Number of The Strawberry

A SCHOOL BOY assigned to prepare an essay on "Ducks," wrote as follows: "The duck is a low, heavy

set bird, composed mostly of meat and feathers. He is a mighty poor singer, having a hoarse voice, caused by getting too many frogs in his neck. He likes the water and carries a toy balloon in his stomach to keep from sinking. The duck has only two legs and they are set so far back on his running gears by nature that they come pretty near missing his body. Some ducks when they get big have curls on their tails and are called drakes. Drakes don't have to set or hatch, but just loaf, go swimming and eat. If I was to be a duck I'd rather be a drake every time."

IN urging the necessity of mulching, the Manchester (N. H.) Farmer makes some interesting points relative to the nature and habits of the strawberry plant, calling attention to the fact that there are other reasons for mulching than to protect the plant from the injurious, sometimes fatal, effects of freezing and thawing. Our contemporary says: "By nature and habit, the strawberry plant is an evergreen. Unlike the bush fruits, it does not ripen its vegetative growth and cast its leaves with the coming of autumn, but will, if given protection, remain green, in a dormant state, waiting for the coming of spring, when it may again take up the process of life. Leaves that come out bright and green will begin work in the spring where they left off in the fall. On the other hand, if the leaves and crown of the plant are left exposed to winter sunshine, the moisture in the leaves will evaporate, and as connection between root and leaf is cut off because of the frozen soil, the leaves shrivel and die."

ONE of the best records for 1906 comes from California. The Hawley ranch, located in El Cajon Valley reports that from two acres Mr. Hawley sold $1,000 worth of strawberries. During the first four days of June he sold $135 worth of the big red fellows. Now, it is said, $1,000 worth of the best of fruits may be gathered from one acre of Golden-state soil, and some ambitious growers will try to make that record in 1907. This is a good example for others to follow.

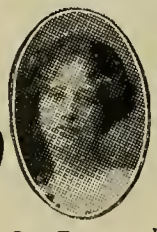
STRAWBERRIES have their limitations. As a steady diet, intended to supply one with nutriment, they are far from a balanced ration. An official of the Department of Agriculture in discussing the nutritive value of fruits says that the average man who should undertake to live on strawberries alone would have to consume eighty-eight pounds of them in a day in order to obtain a sufficient quantity of one of the most important elements of food, protein. But while he was getting the proper amount of protein from the strawberries, they would give him seven times too much of another necessary compound, namely, carbohydrates. Forty-four pounds of tomatoes a day would supply nearly the right quantity of protein, carbohydrates and fat, the three most essential constituents of food. The chief value of fruit consists in its acids, which are really essential to health.

I WILL TEACH YOU BOOKKEEPING FREE AND GET YOU A POSITION

I can make a competent bookkeeper of any woman who will take a course in bookkeeping in the Commercial Correspondence Schools. There is an ever-increasing demand for women bookkeepers. Women learn bookkeeping rapidly and acquire the details of office management very quickly. They are adaptable, energetic and willing. These qualities make them ideal bookkeepers.

If you are engaged in uncongenial employment you should learn bookkeeping. If you are living in the country, and desire to go to some large city, you should first study bookkeeping. If you are standing behind a counter or working in a factory, you should take the Commercial Correspondence Schools' course in bookkeeping, and equip yourself for an office position. Your salary will be larger, your hours shorter, your surroundings more congenial and your future prospects brighter. Competent women bookkeepers can easily earn from $10 to $25 per week. A knowledge of bookkeeping means not only an assured income, but such a knowledge is an investment. "No young lady," wrote the late Harriet Beecher Stowe, "could have a better safeguard against adversities of fortune or a better resource in a time of need, than a good knowledge of business affairs."

These Graduates We Placed in Positions



24 Gross Terrace, Chicago, Ill.
Commercial Correspondence Schools, Rochester, N. Y.

I am pleased to say that through your Employment Bureau I have secured a very good position. Your bookkeeping course is certainly very beneficial, and you do just as you say you will. Should any one care to write me, I would be glad to give them any information concerning the School, for it certainly has been a help to me. I am with the Sturges & Burns Mfg. Co.

OLLIE FISHER

Bergen, N. Y.
Commercial Correspondence Schools, Rochester, N. Y.

I have taken your full course in bookkeeping, and have received my diploma. The course is very thorough and everything is made very easy to understand. Through taking this course I have been placed in a good position. The School has even borne the expense of assisting me to secure a position. I advise all who wish to take a thorough course in bookkeeping to take it with the Commercial Correspondence Schools.

HELEN A. TRIPP

Rockford, Ohio.
Commercial Correspondence Schools, Rochester, N. Y.

Your course and your methods have far exceeded my expectations. I knew nothing about bookkeeping when I began the course. I followed your instructions closely, finished the course, received my graduation diploma, and was placed in the position you secured for me. I could not have obtained the position without your assistance, and the knowledge gained from your course.

LILLIAN ROEBUCK

FREE To all who send in the annexed coupon, I will send free of all charges, my new book, "How to Become an Expert Bookkeeper," together with all particulars of how I will teach you Bookkeeping free and how I obtain positions for graduates. Send in the annexed coupon to-day.

ROBERT J. SHOEMAKER
Vice-Pres. and Gen. Mgr.
Commercial Correspondence Schools
85R Commercial Bldg.,
Rochester, N. Y.

Mail this Coupon and get my Free Book,
"HOW TO BECOME AN EXPERT BOOKKEEPER"

To R. J. Shoemaker,
V. P. and Gen. Mgr.
85R *Commercial Building,*
Rochester, N. Y.

Please send me, free, your book, "How to Become an Expert Bookkeeper," with particulars of your offer of free tuition in Bookkeeping.

Name _____

Post-Office _____

County _____

State _____

THE FIRST PATCH OF STRAWBERRIES EVER GROWN BY E. D. FRAUTCHY, MONTICELLO, WIS.

Strawberries That Made a Merry Christmas

By Elizabeth Clarke Hardy

WHAT Can a Woman Do To Make Money? Mrs. Ellis read the article over twice and then laid down the magazine and looked thoughtfully out of the window. There certainly was need that one woman should do something to make some money if she expected to keep a roof over her head and a home for her children, for it could not be denied that Mr. Ellis was a poor manager, and had made an utter failure at farming.

That very morning they had talked over the matter together.

"There is no use of keeping on in this way," he had said despondently to his wife. "The best I can do is to keep up the interest on the mortgage, and this year it will be a tight squeeze to do that. The farm is run down and we can never make enough off from it to pay the principal, and when the time is up we might as well let it go."

"But what will you do, Allen? We get our living from the farm, and it will be pretty hard to give up the old place and not have a roof over our heads or a place to call our own."

"Yes, it will so; but if we can keep up the interest we can live here for five years, and I shall let Brown have the land to work on shares and I shall go to work for the Green Valley Nursery Company. With my salary and our share of the crops we shall be able to live and pay the interest until the five years are up, and then we'll trust to luck to find another place."

Mrs. Allen's face wore a troubled look and her voice faltered as she said:

"But don't you hate to give up the old place, Allen? We have been very happy here, and the children never have known any other home. I can't bear to think of letting it go on the mortgage after we have paid interest all these years. It is too good a home to let slip through our fingers for $1,200. I wish I could do something to help earn some money."

"Well, you can't. Not on this farm, anyway. You have enough to do to keep up the housework and take care of the children, and what a woman earns never amounts to anything, anyway. You can make a little garden if you want to and I will earn enough to keep the family. Of course, I hate to give up the place, but everything seems to go against me, and there's nothing else to be done."

> I expect to pass through life but once. If, therefore, there be any kindness I can show, or any good thing I can do to any fellow-being, let me do it now, and not defer or neglect it, as I shall not pass this way again."

After this talk Mr. Ellis had hitched up his team and gone to see Mr. Brown, and later to conclude his arrangement with the Green Valley Nursery Company, and when he returned home he was no longer a farmer but a traveling salesman, and the fate of Spring Brook Farm was settled so far as he was concerned.

After this talk with her husband Mrs. Ellis had thought over the matter long and earnestly. She knew her husband's easy-going ways, and the ease with which money slipped through his fingers too well to hope that he would ever save enough to pay up the mortgage and save the farm home. But what could she do? Her first duty was to her home and her children. The twins, Harry and Hazel were ten years old and both were still in the district school. They needed a mother's care and the safeguarding of the home for the present, and for the future she had the ambition that her children should have their rightful chance for an education that should fit them for making the most of life. Evidently whatever she might undertake to do must be done within the limits of her home. It must be work that would not rob her children of her constant companionship, and it must be something that a not overly strong woman could do.

It was while turning over this matter in her mind that her eyes fell upon the article in question "What Can a Woman Do To Make Money?"

She read it over a third time and then went thoughtfully out into the yard and looked over the premises. It was a charming home, but wofully run down, as Mr. Ellis had said. The house was comfortable, but needed repairing and painting. The fences were poor, the pastures thin and the fields in poor tilth for want of fertilization; and it did look discouraging indeed.

The cultivated fields were all on the side of the house next to the farm owned by Mr. Brown. On the other side was the barn and beyond that was five acres that had been used as a pasture for calves and young pigs. Mrs. Ellis looked at

the five acres long and thoughtfully and then returned to the house with a determined look upon her face.

"Well, it is all settled," said Mr. Ellis that evening. "Brown will take the farm on shares, and I am to go to work for the nursery company next week. I've sold off everything but two cows, the work team and Bess. I will need the team for my work and you can have Bess for a driving horse. You can have a part of the money for your own use and I shall need some to start me on the road," and easy-going Mr. Ellis was as happy as though he was sure of a roof over his head and a home in his old age.

"Well, you can let Mr. Brown have all but the five acres beyond the barn. I want that reserved for my own use," said Mrs. Ellis quietly.

"All right. I suppose you will want to make a garden. But you will hardly want to use five acres for that, will you?"

"No, but I think it best to reserve that much. I think I shall set out a little strawberry bed this spring," answered Mrs. Ellis.

"Good idea; it will give you something to putter around w th, and you won't have much to do, with no farm work and me out of the way," said her husband, cheerfully.

Mrs. Ellis was a quiet, self-contained woman and she did not discuss her plans with anyone, not even her children. But all that winter she read everything she could get hold of on the culture of strawberries. She subscribed for a strawberry journal aud took note of what was said of the different varieties, their culture and the marketing of the fruit, and she also acquainted herself with the doings of a fruit-grower's association in a neighboring city.

Early in the spring she hired one and one-half acres of the little pasture plowed. Every particle of the fertilizer that had accumulated around the barn was worked into this and it was put into the very best condition for plants. The half-acre was to be reserved for corn, potatoes and a garden, and the acre was to be set with thoroughbred strawberries.

She decided on "the Big Red Fel lows" as Harry designated the pictures of certain varieties in the strawberry journal, and sent away for about seven thousand plants, paying for them with the money she had saved from the household expenses. She hired a man to help her set out the bed and then for the remainder of the summer she fairly lived in the strawberry patch.

She bought a small, light cultivator and Harry soon learned to drive Bess between the rows, and thus she was saved the expense of hiring the cultivation done, while Harry was very proud to be allowed to help Mamma in the garden.

And how Mrs. Ellis did work that summer! Early and late she was out armed with a hoe. She never had been very strong, but this summer the work in the fresh air and sunshine seemed to fairly renew her youth. At night she would go to bed weary with her unusual labor, but in the morning she was out with the lark, fresh and buoyant from her night of sound, refreshing sleep.

Mr. Ellis came home several times during the summer, but beyond laughing a little at the size of her strawberry patch and praising her thrifty garden he paid little attention to what she was doing. Certainly it never entered his head that his wife expected to realize any profit on her strawberries, but all he seemed to to plan to do was to furnish something for the support of his family and save up money enough to pay the interest on the mortgage.

Mrs. Ellis was a womanly woman and she had a feeling that every self-respecting man should support his family. She did not intend to take any useless burdens upon her own shoulders and she let it be understood that she expected a certain share of her husband's wages to keep up the home, and this he very willingly supplied.

The nearest market was a thriving village six miles from Spring Brook Farm, and there Mrs. Ellis sold some $25 worth of vegetables from her garden, and this money she carefully hoarded to purchase more plants the coming spring.

The neighbors were too busy with their own work to pay much attention to Mrs. Ellis' strawberry bed. It was rather out

FRUIT PACKAGES

Leslie Crates and Boxes

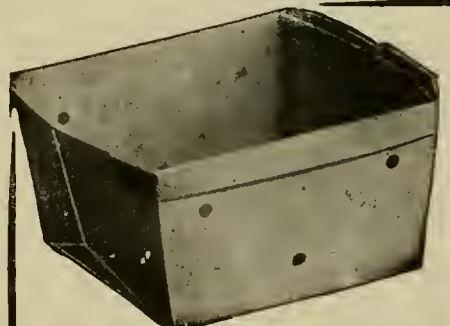
ISN'T it about time to think about getting your Berry Boxes and Crates for next season? Get them now and make them up on stormy days when you cannot work outside. Get them early wherever you get them, but don't forget what our Trademark says about the package selling the fruit.

We have been making Fruit Packages over a quarter of a century and know how to make them right. We use the best timber we can get, make it up with modern machines and the result is a package that shows a finish. Don't take our word for it. Try them.

Write for catalogue and prices. We will answer promptly.

The Pierce-Williams Co.

South Haven, Mich. and Jonesboro, Ark.



The BASKET with the RIM

That is the distinguishing feature of the

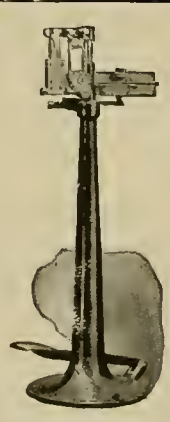
WAX LINED PAPER BERRY BASKET

The height of Clean, Odorless, Taintless, Pure and Perfect Basket Perfection

IF YOU ARE A BERRY GROWER you want our Basket and we want your name

MULLEN BROS. PAPER COMPANY

Send for FREE Sample and Catalogue of this 20th Century Basket Dept. B St. Joseph, Mich.



Save Money by Making Up Your Own Fruit Boxes and Baskets

ON

"ADVANCE" FOOT POWER WIRE STAPLING MACHINE

A Time-Tested, Reliable and Fully Guaranteed Machine
Write for prices and circulars

Mfg. by SARANAC MACHINE CO.,
2731 Main Street ST. JOSEPH, MICH.

of the way of observation, back of the barn, and so she labored faithfully and quietly all through the summer, and by the last of October, when it was time to lay by the strawberry bed, she looked upon the result of her summer's work with pride and satisfaction. The plants had grown luxuriantly and the long straight rows of thrifty, growing plants was really a fine sight to see.

Late in the fall she had two more acres of sod turned over and paid a neighboring farmer to cover it well with stable manure. The winter was a long one to Mrs. Ellis, but she improved her time in reading up on her favorite topic, and along toward spring she joined the Fruit Growers' Association in the city some twenty miles distant.

In the spring the new land was disked and harrowed until in good condition and then set to plants, and this time she ordered late strawberries.

Harry and Hazel and a neighbor's boy helped her set the plants, and to say that she was weary when the task was done but feebly expresses her bodily condition. But her fatigue was nothing when compared to her delight and satisfaction at the appearance of her last year's strawberry bed. She had had it well mulched with her part of the straw from Mr. Brown's rye and oat crop and by the middle of June the plants were white with blossoms.

Mr. Ellis came home the first of May, staid only one day and then left for a distant part of the state to be gone for three months. He did not seem to be quite so much elated over his new business as at first, and told his wife that his expenses were much more than he had calculated on, and that it would be a tight squeeze for him to save the money to pay the interest on the mortgage.

Mrs. Ellis felt rather discouraged by this information, but when the strawberries began to ripen she found she had business on hand which caused her to forget her perplexities. She worked heroically at the picking and the children helped her during vacation. Her berries were shipped through the Fruit Growers' Association, and when at last the vines were denuded and she counted up the proceeds she was more than satisfied with the results of her venture. She had made enough to pay all expenses with a neat little balance which, instead of placing in the bank, she put out at interest to be paid on demand.

She had now three acres of strawberries to tend and care for. But a new sense of elation and independence seemed to have taken possession of her. Her health had improved since she had taken up work in the open air, and was now superb. All fear-thought seemed to have left her and all the forces of her being were projected forth into God's great, prosperous universe, to return laden with success. Her venture meant plenty of hard work, but this she was willing and able to give, and she wisely resolved to hire all needed help so as not to impair her own health or neglect her home and children. The winter gave her a much needed rest, and the third spring, with three acres of plants in splendid condition, she decided to enlarge her field of operation.

The garden was moved to the back yard and the remaining two acres were set to plants, and when Mr. Ellis came home he joked his wife rather sarcastically about her big strawberry patch and asked her if she expected to sell enough to pay the interest on the mortgage the coming fall.

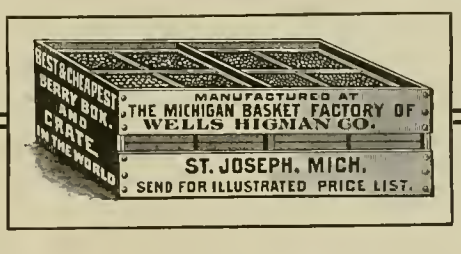
She very decidedly told him that such a thing did not enter into her calculations, at which he patted her kindly on the shoulder and very indulgently assured her that he thought he should be able to make ends meet, and that he was perfectly willing that she should put in her time playing in a strawberry bed. He also assured her that he considered her a pretty good manager, but that women were not expected to have a head for business.

Mrs. Ellis turned away with closed lips and an inscrutable look upon her face, and nothing more was ever said between her and her husband about her playing in the strawberry bed.

Of course, it was necessary for her to hire pickers for the three acres of berries. The season was a favorable one and the crop was immense. But this immense crop did not come entirely through the favorable season, but from plenty of good, hard work and an unlimited amount of faith and enthusiasm projected into the crop. And too, as women are naturally careful and painstaking and especially adapted to such work, her berries went to the market in such fine condition that the sum she realized from their sale was far beyond her most sanguine expectations. This money also was put out at interest and Mrs. Ellis was now launched out as a capitalist and a business woman in a very quiet way. She decided not to enlarge her operations for the next two years, but to give all her time and attention to her five acres of growing plants.

We need not go into details of the next two years only to say that when Mrs. Ellis saw that her strawberries were likely to be injured by the drouth the fourth year of her venture, she promptly had a well driven near the field of fruit and moved the windmill from near the house to the scene of action and, with an inexpensive contrivance of her own, her berries were watered and she had an abundant crop, for which she received the top price in the market because of a general shortage of fruit.

The twins, Harry and Hazel, were now nearing their fifteenth birthday and



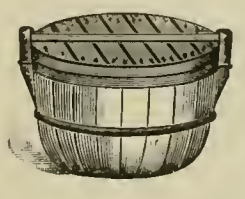
HEADQUARTERS FOR

BERRY BOXES

Peach and Grape Baskets

Also Melon Baskets

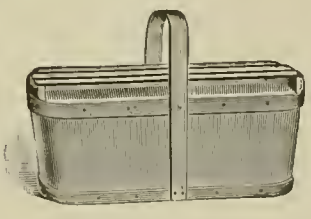
Our Fruit Packages
Are of Highest Quality



Established in 1869
Experience Counts

To obtain highest prices for your fruits, ship in our packages.

Illustrated Price List Free



Wells, Higman Company

Box 10 ST. JOSEPH, MICH.

were a great help to their mother mornings and evenings and during vacation. She paid them the same as she did the other pickers, and they entered into the work with a good deal of enthusiasm, but with the quietness that was the characteristic of their mother.

When the fifth year the crop was gathered and marketed, Mrs. Ellis very quietly drew in the money she had placed out at interest. She went about her work with a new and strange feeling of nervous elation, and yet a great anxiety had been lifted from her mind and she could now look into the future with clear, untroubled eyes.

But in November of this year a new trouble came to the Ellis household. Mr. Ellis had been thrown from his wagon and had sustained serious internal injuries and was brought home in a very critical condition, and for several weeks, while he was slowly nearing recovery, Mrs. Ellis had no other thought than care and anxiety for her husband.

But as his physical condition improved his mind seemed to grow troubled. When well and able to work he had thought in his careless, contented way that they would be able to manage somehow. He planned that when the mortgage was foreclosed they would rent a house somewhere and get along someway, but now the somehow and the someway did not seem so easy. He was no longer able to work, the doctor's bills were heavy, there was nothing but his share of the crop to keep the wolf from the door, and next month, yes, even on Christmas Day, the mortgage would be foreclosed and they would be without a roof over their heads. The outlook was indeed dismal, and no wonder Mr. Ellis, who really was a kind-hearted man, was nearly crazed with care and anxiety.

He would look at his wife in a pathetic, heartbroken way as she went about her household tasks, but could not bring himself to speak of the terrible calamity which he felt was coming upon his family

For the first time he realized how much he loved the old farm, and what it would be to see it pass into the hands of strangers, and what it would mean to them to leave the roof that had sheltered them since the first day of their married life. No wonder he mended slowly with this trouble on his mind, while his wife, thinking only of his physical suffering, ministered to him lovingly and cheerfully.

The day before Christmas Harry and Hazel decorated the rooms with evergreens and trailing vines and scarlet berries, and Mrs. Ellis went about her preparations for a bountiful feast. Mr. Ellis watched her with almost feverish impatience as she went smilingly about her tasks, wondering if she had forgotten or did not care that on the morrow—that brightest and most joyous day of all the year—they would be homeless.

When at last the children had gone to bed and they were alone Mr. Ellis called his wife to him, and in a voice trembling with emotion, said: "I have been a rather poor stick of a husband to you, Mary, and now the prospects look darker than ever to me. Have you forgotten that tomorrow the mortgage runs out? Do you suppose Mr. Lester intends to foreclose? And what shall we do if he does?"

"No, Allen, I had not forgotten, and Mr. Lester has sent me notice that he intends to foreclose. He says he has a purchaser for the place. I thought you had forgotten that the time had expired. Have you been worrying about it, dear?"

"Worrying? Yes. And blaming myself more than I can tell you, Mary. I have been a poor manager, and altogether too slack; and now my family must suffer for my mismanagement. You would have done better than I have, and I wish I had listened to you oftener and taken your advice. But it is too late now for repentance." And for the first time in her life Mrs. Ellis saw her husband's face wet with tears. Now in every woman's heart there are instincts of motherhood so deep and tender and infinite that they not only encompass her own children, but go out to all humanity, and in this moment of his self-abnegation Mr. Ellis caught this look of soothing and comforting mother-love in the face of his wife as she bent over him and smoothed the hair from his burning forehead. All her trouble and worry and hard work of the past five years was forgotten in this moment of her supreme love and compassion for her suffering and remorseful husband.

"Listen, Allen," she said gently; "you have no need to worry so. I have a surprise for you, dear. I thought to keep it as a 'Christmas gift,' but now it does not matter," and going across the room to her desk she returned with a small box in her hand and sat down upon the edge of the bed.

"It is true, Allen, that Mr. Lester expects to foreclose the mortgage tomorrow, and he has served notice that he wishes us to vacate the premises. But we shall not have to give up the old farm—the faithful old place that has yielded such splendid returns for the labor of the last five years, for the money is ready for him."

"Money—ready for him—what do you mean, Mary?" and the face of her husband grew pale with excitement.

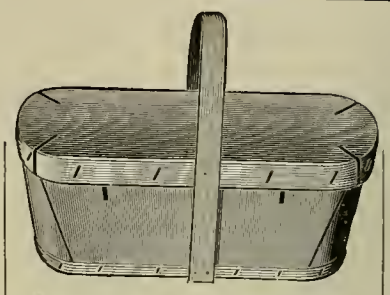
Mrs. Ellis' eyes were full of tears, but she patted her husband soothingly as she explained that the big roll of bills which she spread out on the bed before his astonished eyes was the proceeds of the sales from her strawberry patch during the last four years.

"There are nineteen hundred and fifty dollars, Allen. Twelve hundred for the mortgage and seven hundred and fifty for the future. And then we have the five acres of plants all in fine condition, which are a gold-mine in themselves. Not so discouraging an outlook as you thought, is it Allen?"

It is just as well that we draw a curtain over the remainder of the interview between husband and wife, for some things are too sacred for the eyes and ears of even the friendliest observers. But we cannot refrain from telling that the next morning Mr. Ellis had an interview with Mr. Lester and a lawyer behind closed doors, and after they were gone he called his wife into the room and placed a deed to Spring Brook Farm, made out to Mrs. Mary Ellis, in her hands.

"It is all yours, Mary," he said, in response to her protests, "and this is indeed a day of Christmas joy, and a happier one than I ever expected to see again. You are the Captain hereafter, and all I ask is that you will let me stay and work under your orders."

"Well, I think I'll let you stay," replied his wife teasingly, "and as a great favor I think I shall allow you the privilege of playing in my strawberry bed."



BERRY BOXES

and all kinds of Fruit Packages

OUR SPECIALTIES:

Quart and Pint Berry Boxes, 16 and 24-quart Crates, Picking Stands, Bushel Crates for Vegetables, All Kinds of Grape and Peach Baskets, Bushel Baskets with or without covers, Half-bushel Picking Baskets with strong handles, and many other convenient packages for fruit and vegetable growers; the most durable made

Write for our **Free Catalogue.** It describes and illustrates everything we make

GEO. B. THAYER & CO., Benton Harbor, Mich.

FROM

RANCH TO HOME

Right from the home of the Angora goat to your own home

Beautiful Angora Rugs and Robes

and **express prepaid.** Oregon raises the finest. **I was awarded a gold medal on rugs at the Portland Exposition in 1905.** Satisfaction, or money refunded.

A. L. Hampton, Olalla, Oregon

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter II—Which shows that Troubles and Toil Beset the March to Victory

MY VACATION lasted for several weeks, and most of the time was spent in working among my plants. It was a beautiful summer, and though my muscles were soft from long disuse, the balmy air, the lovely scenery—just the being at home—were so delightful that the labor was actually restful, while the confidence engendered by those rapidly growing plants and the thought that they meant a life of independence amid the quiet and congenial surroundings of my own home nerved me to extraordinary effort, effort that did not appear to tire me as I am sure such work would have done under other circumstances. In fact, I then learned the great lesson that congenial and improving work is like play to the contented mind and possesses nothing of the character of drudgery.

But such delight could not go on forever, and one day came the expected order from the house I was working for, and it said, "Go to San Francisco at once."

"Look at this," I said to my wife, with no little excitement, "I've got to go clear to the coast and leave those plants to take care of themselves."

"Well, I wouldn't go so far away," said my wife. "Why don't you write to the house and tell them you can't leave the strawberries for so long a time?"

"Oh! that wouldn't do. So long as I am working for somebody else, I've got to obey the captain's orders. It isn't for me to say where I shall or shall not go. But just wait till those berries are ripe and I get to be my own boss, then I can say, 'Well, Frank, all you've got to do today is to take those berries to market and let the other fellows do the work.'"

And my wife packed my grip and I left on the 2:10 train next day for the coast. Fortunately, the letter came just as I had finished cultivating and hoeing the plants, and they were in fine shape to leave. I knew, however, that it would not do to leave them entirely to themselves, for, although I did not dare to tell my wife, I had been advised that the trip was to be of several months' duration. So I employed a young fellow whose father was a strawberry grower to look after the patch in my absence.

Dick took right hold of the work, and everything ran along smoothly for a week or so. But one day my wife noticed that the boy was leaning rather heavily on his hoe, looking off into space as though undetermined as to his next move. Evidently he soon decided, for when she next looked out of the window the hoe was sticking in the ground, and the loud shouts from the adjacent base-ball grounds indicated all too clearly whither he had gone.

Dick was a lover of base-ball, and the temptation was too great for him to withstand. Since then he has become famous as a skillful player and his name spells success for the team with which he plays at a big salary for the season. And although he found it hard to stick to his job in my patch at that time, he now is part owner of a successful strawberry farm.

Well, this neglect of the plants was a serious matter, and my wife found it necessary to take hold of the situation. Her hardest task was to keep Dick away from that base-ball park; but never a word of her work and worry came to me. Her

letters were full of good cheer, showing only the bright side of things.

August, September, October, and still I was away on the Pacific coast, longing for the time to come when I might return. In mid-November that joy was mine, and I was once more "toasting my shins" at my own fireside. Surely, there never was a truer word written than those of John Howard Payne—"Be it ever so humble there's no place like home!" Those big hotels where I had paid enough for one day's entertainment to support my family for a week—what were they when compared to the coziness of my own home and the companionship of wife and baby!

It was late in the evening when I arrived at the house, but after the first greetings I took baby in my arms and all three of us went out to the patch which had been for all these months of absence so largely in my mind as the hope and promise of the future. I could not believe my own eyes. Was it possible this was the patch I had left three months ago?

I tried to hide my disappointment, but my wife's keen eyes noted the change of expression. "Well, I'm not the only runner in this patch," I said, hoping to give an air of cheerfulness to the moment. The plants certainly were thrifty enough; but there appeared to be a reciprocal arrangement between the different varieties by which each was allowed to occupy the other's territory. The Crescents had moved in entire sections over into the Warfield rows, and the Warfields had taken possession of every vacancy left by the Crescents. There was but one thing to do, and that was to declare war upon those riotous and intermeddling fellows, and the next morning found me vigorously at work in that field trying to undo the mischief Dick's lack of experience and his love of play had caused.

What that task meant for me, with my hands soft from years of freedom from manual labor you may imagine, and long before noon of that first day my back felt as if it would break in two. Only my love for the work and my determination to make a success of that strawberry enterprise kept me from throwing that hoe over into the next field and "quitting the job" forever.

What worried me most was the intermingling of the runners of the two varieties. Like many another beginner I was trying to have at the same time and in the same place a propagating bed and a fruiting bed, and this mixing of varieties had blighted all my hopes along that line. Noon came and with all my industry and sore hands and lame back only two rows of that big field (it seemed to be vast now) had been cleaned out. The dinner call found me tired, lame, and sore in body and heart, and even the tempting dinner spread before me could not lift me out of that Slough of Despond.

"You've gone to work too vigorously the first day," said my wife. "I'll come out and help you after I get the dinner work done up," she said, and sure enough, about two o'clock she joined me and worked faithfully with me until evening. Her help in a material way was very great, but to know that she was with me in sympathy and interest lifted a burden from my shoulders and gave new promise of success to me.

Two long and tedious weeks of weeding and runner-pulling and I was done with that feature of the work. The next operation was that of mulching, and when this was done I was off on a series of trips, lasting until about April 1. I returned home just in time to uncover the plants and to prepare the ground for an increased acreage, as I had fully determined to at once set out two more acres that spring. Some of the plants were taken

from my fruiting bed, using the tip plants, as I wished to save all the others for fruiting, and some were taken from my neighbor's bed, as I did not believe in sending good money away for something that could be had free; and a few more which I bought and had shipped in. The plants in this new field were carefully set, and like the other bed, started at once into vigorous growth.

It was an early spring, and the air was sweet and soft and balmy. Already the old plants had gone to work and I found them under the straw making new growth. The foliage looked almost as green and fresh as when I put them to bed, and at blooming time!—well, few old strawberry growers ever have had a more beautiful or encouraging sight to cheer them on than it was my privilege to enjoy that lovely spring. The vines literally were covered with white flowers.

"Get me pen and paper," I said to my wife. "I must order crates and boxes at once." And in a moment the end of the dining table had been transformed into a "desk" and I began to consider the situation.

"How many crates will you order?" inquired my wife.

"That's just what I don't know, but it's going to take several hundred crates. Suppose we order four hundred crates with enough quart boxes to match? We must be sure to have enough. But before deciding let's go out and see the patch."

My wife was surprised and delighted with what she saw. "Did you ever see such a sea of bloom? And will every flower there make a berry?" she exclaimed.

"Why, of course they will, and a big one, too. And we've no time to lose in getting that crate and box material, either. By the time I get them made up this field will have changed from white to red. Then the question will be, where can we sell them all? But I'm something of a salesman myself, and I sha'n't let that worry me, if you will look after the picking."

"All right; that suits me," replied my wife. "And say, Frank, that bird in the hand is all right—er—don't you think you'd better give up your job so that you may the better attend to this home industry of ours?"

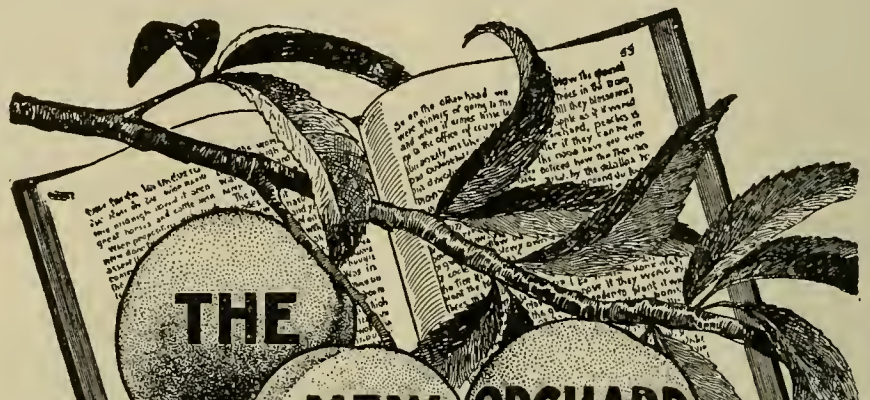
(Continued in January number.)

Where Opportunity is Neglected

HOW many people are there who persist in turning their eyes in the wrong direction; hence never catch a glimpse of success. This reflection is suggested by the following clipping from the Calumet (Mich.) News:

"James M. Clark of Whitefish Point, a pioneer of Chippewa county, is one of the many upper peninsula farmers who have confidence in the future of this region in an agricultural way. Mr. Clark does not base his argument entirely upon theory, but is in a position to use the stronger arguments of example and fact. At his home near Whitefish Point he has what is claimed to be one of the best kept strawberry and cranberry farms in the state. He claims the state record for production of strawberries, having shipped 4,064 quarts from less than half an acre of ground. If anybody needs proof of the statement Mr. Clark claims to be ready to produce the shipping receipts. He claims to have excellent success with both the strawberries and cranberries each year and that the quality cannot be beaten anywhere. He thinks that many of the farmers of this region who appear to be discouraged would have little reason for being in that state of mind if they would study their soil and give thorough attention to those branches of agriculture for which it is adapted."

Don't make this mistake. Study your soil, your location relative to markets, the markets themselves; and then study yourself to discover whether you have it in



FARM JOURNAL

is the leading farm paper in America, with more subscribers than any other farm paper in the world. It is a monthly, thirty years young, taken and appreciated everywhere, from Maine to California. Thousands in your state already take it. Your neighbor knows all about it. It is full of sunshine and gumption, is edited by practical farmers who know whereof they write. It has no ax to grind, prints no long-winded articles by theoretical specialists, but aims to give in season, and just when wanted, advice and timely help such as you, a busy farmer, need. **Farm Journal** has departments for the stockraiser, the orchardist, the dairyman, the trucker, the general farmer, the poultryman and the women folks, with many short cuts, recipes and hints, many of which, our readers often write, are worth the cost of the paper. **Farm Journal** is 75c for 5 years, sixty numbers.

Biggle Orchard Book

We have just off the press **Biggle Orchard Book**, the greatest fruit book ever issued by any publishing house. Great, because it is practical, boiled down, has everything you want to know, and leaves out a whole lot the average fruit grower doesn't wan to bother with. There are one hundred and twenty-three illustrations and twenty pages of colored plates, showing the leading varieties, reproduced by photography, so that they are true to color and shape. It has chapters telling which are the best varieties for your section, on planting, cultivating, picking, marketing, spraying, etc. In short, an up-to-date, common sense book. Bound in cloth. Price, 50 cents, by mail.

There are eight other Biggle Books, one each on the Horse, Cow, Poultry, Swine, Sheep, Berries, Health and Pets, all built on the same plan as the Orchard Book. So popular are the Biggle Books that over 175,000 copies have already been sold.

The Roosevelt Family Calendar

is a high art calendar for the year 1907, showing a family group of President and Mrs. Roosevelt and their six children. It contains no advertising matter whatever, but it is a beautiful and artistic production, such as anyone will be glad to hang in parlor, sittingroom or office, and preserve forever as a historic souvenir. Or it will make a valued, attractive Christmas gift for some relative or friend.

For **$1 Farm Journal** for 5 years, (60 issues) and Biggle Orchard Book and include the Roosevelt Family Calendar, if your order is received before Jan. 1st. (Any other of the Biggle Books may be substituted for the Orchard Book.) Safe delivery of Book and calendar guaranteed.

For **$1 Farm Journal** to one address for 10 years, or to two addresses for 5 years each, provided at least one of these subscriptions is a new one; if both are new so much the better. A Roosevelt Family Calendar as a free gift for promptness to each subscriber if subscriptions are received by Jan. 1st.

For **25 cents Farm Journal** on trial two full years, and a copy of the Roosevelt Family Calendar. This offer for new subscribers. Calendar offer is good only to Jan. 1st. Send coin or stamps at once; your money back gladly if not satisfied with any of these offers. Agents wanted on salary.

FARM JOURNAL, 1023 Race Street, Philadelphia, Pa.

you to carry forward an enterprise to which that soil and that location are adapted. If you are all right, depend upon it that nature will do her part toward winning success.

Received His Dollar's Worth Many Times Over

By Arthur F. Jones

I FEEL as though I had neglected to write to a very dear friend, for I certainly hold The Strawberry very dear, and would sing its praises loud and long. One gets such inspiration from it. If a man is getting a little heedless or tired—isn't paying just the attention to his strawberry patch that he ought—along comes The Strawberry and acts as a revival to a fellow; gives him renewed powers and energy to get right after those runners and weeds and stir up a dust mulch; he gets out with his sprayer and at it.

I have thought several times to write you to ask some questions, but would always find in The Strawberry someone asking the same ones and, getting the benefit of your answers to him, would not write. Really, I have had my dollar's worth over and over again.

My plants came last spring in fine condition, but they did not find me in as fine condition to receive them. My ground was not ready, neither could I get it ready, but I did as you recommended and heeled them in; they were left so for twenty-five days. The eighth or ninth day we had a real hard freeze, but I had them covered with straw and that cold spell lasted for three or four days, and I thought that they might smother. Four or five nights later came a very heavy frost and, not expecting it, did not have them covered, and the crowns were all turned black and the leaves yellow.

A neighbor of mine had been guying me for sending away after plants when I could get them right here for a little or nothing, and really had plenty of my own. Well, how he laughed when he saw them! And I did feel a little blue myself; but when the time came to set them out, I certainly was surprised. I thought half of them were dead (they were mixed up some with the straw; of course, I had taken it off as best I could) but there were only two out of the thousand that were dead.

I set them out and my! how they did brace up and grow! I think they must have been endowed with some of the enthusiasm that comes with The Strawberry. I have kept them strictly to the double-hedge row, only in August the weeds and runners got a little the best of me. You see I have half an acre in all that I set out this spring, and I am painting for a livelihood. During August I was on two or three jobs out of town that I could not get away from. But when the September Strawberry came, I read it that night, and the next morning I told the boys I was not going painting. I got after those weeds and cleaned them out thoroughly, and took a pair of shears and cut every runner, and all small plants that had formed on the matted plants and on the plants that formed my ideal row. I have been through them six or eight times since and cut off every surplus runner and kept them well cultivated and free from weeds, and how they have started up and made fruit crowns!

There are two or three questions that I would like to ask:

1. Are there any paying results obtained from applying fertilizer in the early spring to the bed I expect to pick from that year? That is customary around here. Would it pay to repeat the application a little later?

2. Not being able to get at them to cultivate again is there any benefit derived, or harm done, by putting straw between the rows at this time? The bed being in good shape, free from weeds, and just after a rain, I just sprinkled fine manure between the rows also.

Wells, Vermont.

Answering your first question, we note that you say in the second that you have scattered fine manure between the rows. This, with the mineral matter already in the soil, should supply the plants amply with plant food with no additional fertilizer. It does not pay to apply any fertilizer on the fruiting bed in the spring just before berries ripen, as little of it would become available quickly enough to have any effect.

2. The placing of straw or mulching between the rows at this time will be of large benefit to your plants, and as your ground is entirely free from weeds you may do this without a moment's hesitation. And the plants themselves may be covered any time after freezing. In fact, this is an ideal way, but we do not recommend it, as it increases the expense, of course, to mulch at two different times.

A Trifle Absent Minded

Mrs. Schoppen: "I want five pounds of sugar, please."

Grocer: "Yes'm; anything else?"

Mrs. Schoppen: "No, that's all; I'll take it with me if it isn't too heavy a package."

Grocer: "Oh, it'll only weigh three or four pounds, ma'am."—Philadelphia Press.

TRAVELERS tell us, as an evidence of the hardiness of the strawberry, that it is found clinging to the snow-covered Alps, where it is said to ripen to perfection. The friend who found ripe strawberries peeping out through the snow

KALAMAZOO
Supply House

Sells Everything for the Farm and Home at Wholesale Factory Prices. Direct from Factory to Purchaser.

$3.85 up without cover

With cover, $4.25 up. We have seven sizes Kettle Cookers and five other styles

A larger and finer line of farm utensils, vehicles, specialties for stockmen, poultrymen and others, and furniture than was ever before shown in a catalogue, all at **rock-bottom prices.**

We want you to send today for our new 400-page catalogue. If you ever buy anything at all in our line this catalogue will save you money. That isn't a mere statement for advertising purposes. It's **the exact truth.** We invite a close comparison of our goods and prices with the goods and prices of any other reputable mail-order house in America. We know the result of such a comparison. It means **NEW CUSTOMERS FOR US.**

Everything in our catalogue is accurately illustrated and described and everything is of guaranteed quality. We stand behind every sale we make, with **full value guaranteed.**

Humphrey's Green Bone and Vegetable Cutter, only **$11.00** We sell Mann's and other styles

Everything for Poultrymen

This Grinder only **$10.15** 25 kinds in our big catalogue

Our New Catalogue

shows an immense and complete line of merchandise for the Fall and Winter, so before you give another order anywhere we want you to have our catalogue and look through it. If you will send for it right away you will not lose any time by giving us a chance to prove that our claims are backed up by facts. When you look through our catalogue we believe you will find just what you want, and if you are convinced that you can save money by doing business with the big Kalamazoo Supply House you will send us an order. And remember, no difference how large or how small the order, we sell everything on a **binding guarantee of satisfaction or money refunded.** Furthermore, we can promise to show you what real service in mail-order trading is.

This Root Cutter only **$6.90** Capacity, 1 bu. per minute. Other kinds and prices

SAVE 1-3—Steam Feed Cooker Cooks a barrel of Feed or Spraying Mixture, etc., in one-half hour. Requires but little fuel. Saves labor. Tested to 100 pounds pressure. On the market for 20 years. With proper care will last a lifetime.

Price, No. 1, with 9 Flues.....$20.79
Price, No. 2, with 13 Flues..... 21.79

We have a special No. 3 size, water around fire box, tested to 160 pounds pressure, and will develop 2 horse-power. Price, **$31.50**

These are just a few articles of the hundreds shown in our great catalogue. Send for it today. We want you to have it. Address **CASH SUPPLY & MFG. CO., 892 Lawrence Square, Kalamazoo, Mich.**

Better Fruit

A Fruit Journal devoted exclusively to commercial fruit growing. Articles on up-to-date methods by able and successful men. Methods of the West, famous as producers of fancy fruit and world renowned as high-price getters

Subscriptions, $1.00 per Year
Sample copies mailed on request

BETTER FRUIT PUB. CO., HOOD RIVER, ORE.

Did You Ever Use Press Clippings?

DO YOU want to know everything possible about anything?

Want clippings of every article published on any topic in the American or Foreign press, weeklies, dailies, magazines and trade papers?

Want to compile a scrap-book on a special subject?

Want to prepare a response to a toast; speech in a debating club or elsewhere; paper or essay in a literary club, or anything of that nature?

The easiest, surest, quickest, most economical way is to secure the services of our large staff of trained readers.

Send $3.00 for a special trial month.

United States Press Clipping Bureau,
13th Floor Republic Bldg. Chicago, Ill.

Send stamp for booklet.

in his patch at Sandusky, Ohio, October 10, will have no doubt of the ability of the strawberry to thrive under very discouraging meteorological conditions. The past season has witnessed some remarkable phenomena in the strawberry fields, most of which indicate that there is no other fruit that is more persistent and reliable than the strawberry.

I KNOW that the world, the great big world
Will never a moment stop
To see which dog may be in the fault,
But will shout for the dog on top.
But for me, I shall never pause to ask
Which dog may be in the right,
For my heart will beat, while it beats at all,
For the *under* dog in the fight."

More Differences Than One in the Quality of Fruit

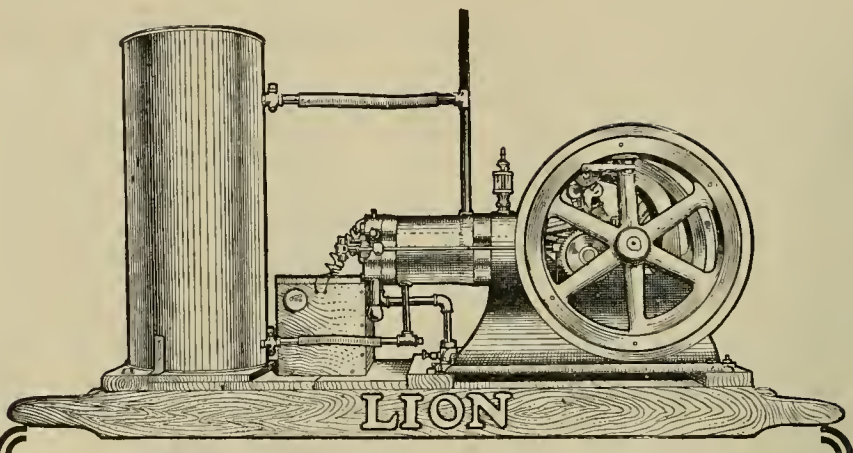
"I SHALL not forget my first experience in selling strawberries," writes a practical strawberry grower in Rural New-Yorker. He continues: "That year the crop in this section was unusually heavy, and prices therefore ruled very low. When I came to town there were 32 wagon loads on the market, and still coming; berries sold from three to five cents per quart. I had some fine large Jessie and Bubach, and got six cents for them. After being sold out I walked into a store, where I saw a large display marked from five to seven cents per quart, but at one side, on a separate counter, were a small lot marked 11 cents. They were a sight to behold, laid in tiers in the basket, the dark-colored side of the berry turned up, laid closely together, every berry seemingly of the same large size, and filled so full there was not room for another berry in the basket; the attractiveness was a revelation to me.

"I went home; there 120 quarts, as fine berries as those I saw in town, were already picked for next day's market, but they were not filled as well, nor as nicely graded, and not as attractively put up as those in town. I went to work at once, refilled, and put up the berries as I had seen the others in town. When done I had 87 quarts firsts, 18 quarts seconds, and 15 quarts of empty baskets. I lost 15 quarts by filling baskets the new way.

"I went to town the next day; the market was in the same glutted condition, but I asked and received readily 10 cents per quart. I got seven cents per quart for my seconds; the 105 quarts sold for $9.95; had I left the same berries in the 120 quart baskets I should have received $7.20 for them. I do not retail; I sell all my stuff to grocers and dealers.

"Having my load sold I went into the store to collect, but had to wait quite a while, as they were very busy. Here I had a chance to see what people really want. Strawberries were marked from five to seven cents; mine were marked 12 1-2 cents. To prove to you that people will pay a big price for a fine article honestly put up more cheerfully than a lower price for an inferior article, I was surprised to notice that everyone who bought berries took mine and paid 12 1-2 cents for them, leaving the five and seven-cent berries, until all mine were sold except a half bushel, which the grocer put back under the counter saving them, as he said, for a special customer.

"One lady ordering five quarts of my berries, spoke up and said: 'Of course they are so much nicer than those others, but it seems the difference in the price is is very big." The grocer said: "I make one-half cent more on the cheap berries than I do on these—you will have to quarrel with that man," turning to me. "He puts that high price on them." The lady looked at me as though waiting for an explanation, so I told the grocer to select one basket of his cheap berries and put them on the scale and weigh it.



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

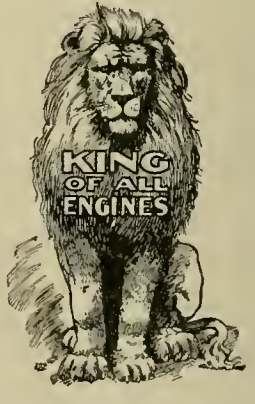
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

LYONS ENGINE COMPANY, Lyons, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in The Strawberry. Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

LYONS ENGINE COMPANY, Lyons, Michigan.

He did so and announced the weight. "Now," I said, "select any one of my baskets and weigh it." He did so, and there were 8 1-2 ounces more fruit in my basket than in the other. "Now," I said to the lady, "you see you pay that higher price not only for select fruit, but you get more of it." She was fully convinced and highly pleased. The grocer then contracted for my whole crop and has bought from me ever since."

Clipping, Comment and Criticism

By Frank E. Beatty

THE nature and habits of the strawberry require that tillage be continuous through the season. Down in the crown of the plant are being perfected fruit buds which are large or small, strong or weak as the conditions for their development are favorable or unfavorable.

The strawberry plant requires plenty of moisture for its proper development. Weekly stirring of the surface soil secures the earth mulch and holds soil moisture for the use of the plants. Not only so, but this continuous stirring of the soil preserves ideal conditions whereby the soil life manufactures plant food, so to speak.

The bacteria which work upon the elements of plant food in the soil, converting them from an insoluble to a soluble form, play a most important part in plant life. Soil aeration is one of the things required by these bacteria, and this condition in the soil is secured by continuous cultivation.—American Farm World.

WHOEVER wrote that brief article knows his business, for if there is any one thing better than thorough stirring of the soil by cultivation, it is more cultivation. Strawberry plants easily may be taken through two months of drouth in splendid growing condition by intelligent cultural methods. This was clearly demonstrated on The Strawberry farm this season. Where intensive cultivation is consistently practiced, the fruit buds always will be large and fully developed.

JUST how much work should be done in the strawberry bed during the late fall depends upon the style of culture, whether it be the full matted row, the narrow row or hedge row, etc., and the taste of the grower. If one's taste is not offended at the sight of weeds; if one does not realize the influence of noxious growths upon the plants, then the grower may rest in some degree of comfort while the strawberry bed is suffering under neglect.

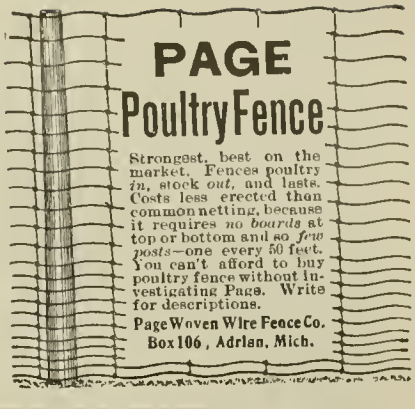
There is another factor to be considered and that is the moisture problem. The growers who are fortunate enough to be located where there is an abundant rainfall may smile when we mention moisture, but if they were laboring under the disadvantages of a drouth as we are and have been the whole season through, they would appreciate the situation and understand why we place such importance upon the question of moisture. A strawberry plant does not ripen its growth and cast its leaves as does a tree or shrub or even raspberry canes, upon the approach of winter, but will, if conditions are favorable, continue building fruit buds and storing vitality against next season's crop of fruit. The more we can do to aid the plants in their work the larger will be the crop and the greater the profits.—M. N. E. in Michigan Farmer.

IF cultivation be continued intensively after fruit buds begin building, the power of the plant which should go to fruit-bud development will be checked and useless vegetative growth will predominate, no matter whether the plants are grown in narrow or wide rows. A man whose taste is not offended at the sight of weeds growing in company with his strawberry plants does not possess the taste necessary for a successful strawberry man, and in a few years there wouldn't be enough to "taste" at all, and his rest and comfort would soon come to an end.

THE purpose of mulching strawberries is to protect them from frost, and is just as great a necessity as cultivating the soil. As to the material to be used for a mulch, I have found that there is nothing to equal good, sound straw. It admits a free circulation of air, and affords sufficient shade to prevent the too hasty action of the warm sun. The use of fallen leaves is, however, an objection, as they soon decay, and in that state become too compact and smother out the plants. In applying the mulch to strawberries, it must be remembered that it is not done merely to protect the plants from the cold, but also to prevent repeated thawing, and the danger of smothering the plants with too much covering of straw must be guarded against as well as with any other material. In mulching my strawberries I merely hide the plants out of sight. The time for applying and removing the mulch is better indicated by conditions. A suitable time for one part of the country would not be appropriate to another. I apply the mulch to my strawberries about October 15, and remove it about the last of March or first of April. The first freezing of the ground is a good indication of the time to apply the mulch, and when oats are being sown is a safe time to remove it. If the mulch is left between the rows until the picking season is over it will prevent the rain from spattering the berries with dirt and serve as a carpet on which to walk, to kneel and to crawl when picking.—W. H. Underwood in Farmers Voice.

THIS writer must be a reader of The Strawberry, as his method of and views concerning mulching so closely coincide with those of this journal. And if he isn't then he ought to be, and we cordially invite him to come into a company so congenial as he would find this one. The one comment on what he has to say is best expressed by the word, very emphatically spoken—amen!

IN California we are not troubled with the meadow grass that comes up in the strawberry bed, and pull you never so carefully it is almost impossible not to pull up the runners and even large plants. We are troubled with pursley in most localities and it is such a prolific seeder that the only sure way to get rid of it is to have a box or basket with you when you are weeding and put the pursley in the basket and carry it away from the bed. If you have a pig he will be thankful for it. The crab grass that comes


PAGE
Poultry Fence
Strongest, best on the market. Fences poultry in, stock out, and lasts. Costs less erected than common netting, because it requires no boards at top or bottom and so few posts—one every 50 feet. You can't afford to buy poultry fence without investigating Page. Write for descriptions.
Page Woven Wire Fence Co.
Box 106, Adrian, Mich.

Make More Money on Fruit Crops
Everyone who grows fruit, whether a large commercial grower, or one who has only a few fruit trees, a berry patch or a garden, should be interested in knowing how to get the most profit from his crops.
THE FRUIT-GROWER
ST. JOSEPH, MISSOURI
is the only magazine in America which is devoted exclusively to the interests of those who grow fruit. It is handsomely illustrated, and contains from 36 to 76 pages each month. It tells all about fruit of all kinds—and nothing but fruit—how to market, how to pack, cultivate, spray, prune, how to MAKE MORE MONEY from your crops. Sample copy will be sent free. Regular price is a dollar a year, and each subscriber is entitled to a choice of any one of our series of ten "Brother Jonathan" Fruit Books—the best in existence.
Three Months Free
We are so confident The Fruit-Grower will please you that we will send it to you three months absolutely free if you will mention paper in which you saw this advertisement. If, after three months, you like the paper, we will make you a special offer for twelve months more. If you don't like it, notify us and we will take your name off the list. The three months will cost you nothing. We offer Cash Prizes for new subscribers—write for particulars. Write your name and address in blanks below and mail to Fruit-Grower Co., Box B, St. Joseph, Mo.
FRUIT-GROWER CO., ST. JOSEPH, MO.
I accept your FREE three month's trial offer. At end of three months I will either pay for a year's subscription or notify you to stop paper. In either event there is to be NO charge for the three month's trial.
Name
Route or P. O. Box Number
Town
State

through the water flumes is another bad customer, as it is so tenacious in rooting that it will take up all with it when you pull it.—San Francisco World.

PURSLEY and crab grass are difficult to get rid of once they get a foothold, but there is no danger of their doing that where a Planet Jr. cultivator or wheel hoe is kept polished in the soil between the rows and no rust is allowed to gather on the blade of the hand hoe. All obnoxious growths may best be kept under control by "killing" them before they start to grow—stir the soil and destroy the seed while in the germination stage. If crab grass or pursley should get started among your plants, however, whether by neglect or otherwise, the best way to remove them without disturbing the plants is to hold the plants down by placing the thumb and finger around the crown and press down on the soil with the ball of the hand while with the other hand pulling the grass. Jerk or jar slightly while pulling, which will lessen the danger of destroying the plants' roots, and if possible do this work after a rain. But as we said before, the ideal time to do this work is before the grass gets above ground.

IN a lecture at our Chautauqua this summer, Prof. P. G. Holden, the Iowa corn expert, said that the main cause of the small yield or corn was the poor stand This will hold as true in strawberries as in corn. I have seen strawberry patches where the skips and vacant places would cut down the yield materially. In fact, I did not have to go off my own place to find such things. If it doesn't pay to cultivate a field of corn with twenty-five per cent of the hills gone, it pays less to do such work in strawberries, for they take much more cultivating and hoeing. But I would give a good deal for as easy a solution of how to get a good stand of strawberries as Prof. Holden has of corn. This year I have succeeded fairly well, having fully ninety-five per cent of a stand on my whole two acres, with the exception of the Sample, which is not over seventy-five per cent. Just why, I am not able to explain. I have sent plants to the Experiment Station but could get no help.

It is a saying among those who grow strawberries for the fruit, that "the worst weed in a strawberry bed is a strawberry plant." But with the use of the weeder I think I can control that. The hot and wet weather of August has given me an unusual growth of "pusley," but cool weather and a frost will soon stop that. It is the perennial weeds that should be kept out of a strawberry bed in the fall, such as dock, dandelion, plantain, etc., and with me nothing is so bad as timothy.—E. C. Green in Ohio Farmer.

IT does not pay to cultivate unoccupied space in the case of any crop. In order to insure a full stand of strawberries these simple rules should be observed:

1. Make a carefully prepared soil bed, pressed firm enough with roller or float to close all large air spaces.

2. Avoid turning under coarse manure; even well-decayed manure should be mixed thoroughly with the soil before setting the plants.

3. Use strong, vigorous and dormant plants that have been well protected during winter with mulching, as this insures well-calloused roots.

4. Prune the roots back at least one-third and be careful to have all the roots well spread out in fan shape and placed straight down in the opening when setting them, and press the soil firmly against the roots so that every root will come in contact with the earth. Set all scant runner-makers not more than twenty inches apart in the row, and all excessive runner-makers not less than thirty inches apart.

5. Be very sure that the crown of the plant is above the surface of the soil; better have the top of the roots exposed above the surface than to have the crown even partly below the surface. A plant will start growing quicker and more vigorously when the shoulder of the roots is just even with the surface, and runners also will start earlier, than if the body of the plant is set below the surface.

6. Cultivate immediately after setting; plants should carefully be cultivated the same day they are set out and hoed within a week from setting.

7. Always order ten per cent more plants than you estimate your ground requires. Heel these extras in and shade them to hold dormant as long as possible, and reset in vacancies. If you set your own plants reserve some in the propagating bed for this purpose. In case you are so fortunate as to get a full stand, the surplus may be sold or set in other ground.

8. If all plants do not start at once, don't get discouraged, but keep cultivating and hoeing. This will stimulate action.

9. Pick all fruit buds off before bloom opens, for just as soon as the flower opens pollen exhaustion occurs; especially is this true with all bisexual varieties. This weakens the vitality which has been stored up in the plant the previous year. And don't forget that the plant must live upon this stored-up vitality until its feeding roots begin to absorb plant food from the soil.

10. Do not allow runners to remain on any mother plant which appears weak or backward in growth.

Verily, verily, if these ten command-

DO YOU see the two men in this picture and the positions they occupy in the world? One sitting discouraged at the bottom of the ladder, never looking up with ambitious, determined eye, resolved to climb to the place occupied by his successful fellow? Well, it is the mission of The Strawberry to change all that, and help the man who labors under a burden of worry, struggle and debt to throw off his galling chains and take a place among those who are named the Successful Ones. And those who don't know just which way to turn—these we know we may direct into paths sure to lead to independence and a home if—they will do their part. That is the

object of The Strawberry and the Correspondence School of Strawberry Culture which forms so important a part of the work of this magazine. Don't you want to get to the top? If you do, come and let us help you in your upward climb. Honor, fame and fortune are certain to all who work intelligently and persistently in the field of strawberry production, and we show you just what to do, how to do it, when to do it, and the why of it. Join our great family and march forward to success. It's The Strawberry folks who are reaching the top of the ladder! Thirty thousand now on the roll—but we would leave nobody out. There's always room at the top! Don't stay down at the bottom!

SPRAYING

your fruit with a good spray pump means dollars to you. The Eclipse earns big profits and lasts for years. We invented the

ECLIPSE
SPRAY PUMP

after experimenting for years in our own orchards with the common sprayers. We have it illustrated in our 40-page catalog—send for it to-day—it's brimful of useful and interesting reading for the gardener and fruitman.

MORRILL & MORLEY
Benton Harbor, Mich.

ments be religiously observed, you never will be made to repent, at least so far as the strawberry business is concerned. Keep the cultivator and hoe shining with actual service; remember that every runner that takes root after the ideal row is made is as much of an intruder as a weed or any other noxious growth; keep the tares out of the patch, especially if the season be wet and favorable to runner-making. We do not favor the use of a horse weeder among strawberry plants, as the teeth get under the crown and tear out some of the plants. However, the weeder is an invaluable tool in the growing of most farm crops.

One Farmer and His Strawberries

By Edgar L. Vincent

"WHY can't we raise 'em ourselves?" The peddler man had just been along with his load of nice, luscious strawberries. We had invested in a few baskets and were sitting under the porch where the sun did not shine too hot, revelling in the rosy-cheeked fruit, Laddie was gobbling them up, or down, just as you prefer, at a rate that argued great things for the berries and were a sure prophecy that the bottom of the basket would speedily come into sight.

"My, Laddie! Don't dip clear to the bottom the first thing! I'm afraid we will not have enough for supper!"

Mother's foresight had the advantage of keeping the upper hands of her love for the berries, a thing Laddie had not yet learned. But we sat there after Mother had taken the remnants back to the kitchen and wisely covered them safely out of sight against the time of the evening meal and returned to help us figure out just why it is that the ordinary, everyday farmer, and our own particular branch of the genus, does not more frequently grow his own strawberries.

The more we talked it over, the stronger became the determination to try it.

"I'll get out the manure, Father, and plow the land myself. You needn't do a thing but just boss the job. If you want to order the plants, that'll be all right. You have that for your share of the partnership and I'll do the rest. What do you say?"

Well, I said we would do it. So the next stormy day, when the work outside did not press too hard, I wrote a reliable nursery house not too far from our home for a strawberry catalogue.

We took one whole evening to look that catalogue through. How we did revel in the bright pictures, and what comfort we did get in reading the carefully studied descriptions of the plants and their fruitage. Then I wrote again, this time in answer to a kindly offer by the firm that sent us the catalogue, telling them what our soil is, and soon a letter came in reply, giving us the names of a number of varieties adapted to our locality and ripening at different times, so that we might have a supply as long as possible.

That next spring we fitted up a small piece of ground for strawberries. We did not want to begin on too large a scale all at once. The best place to begin in anything is at the bottom. Laddie did as he said he would. He drew out the manure and plowed the ground. It did not interfere with our regular farm work much. That is the argument usually presented by the everyday farmer:

"Takes too much time. We need our strength for work that has got to be done."

But hope sang a pretty song for us all the way through. The plants came in due time and we set them out the best we knew. Nearly all of them lived. We kept the runners down, according to the directions of the strawberry journal for which we subscribed. I think we were all a little bit glad, though, when one plant stole a march on us and pushed two or three big berries on to perfection. Tucked away under the leaves they climbed up to maturity. I have sometimes wondered if Laddie did not know all about those berries. How in the world could they have escaped the boy's sharp eyes? At any rate, it was a great day when he brought the first one in. We divided it and each had a taste that evening for supper. It was the best berry we ever ate, and no mistake.

We had no difficulty in keeping the weeds down that next season. No one ever will who loves strawberries and enjoys seeing them grow. And what a time it was when we picked the first mess, enough for a good big dish for each of us! No berries we ever bought half came up to those we had grown ourselves. I wonder if it is not always so? The thing that gives us the most of happiness is the thing we do ourselves.

Two or three things we have learned about strawberries since we began.

We have had better success setting the plants out in the spring than in the fall.

Weeds and berries do not go well together.

Plenty of water is the price of plenty of berries.

Most farmers make the mistake of crowding the ground too closely. The plants ought to be at least three feet apart one way and two the other.

Finally, the best berries are the ones we send down the road to the neighbor who has none. They taste the best; they bring the most of pleasure. But there is a joy in those we have on our own table and which we eat down in the field between times that comes from the growing of no other crop I know of.

Binghamton, N. Y.

Mistress: "Did the fisherman who stopped here this morning have frogs' legs?"

Nora: "Sure, mum, I dinnaw. He wore pants."—Cornell Widow.

We Sell You Doors 80c
Windows 62c

ALL HIGH GRADE AND AT HALF YOUR LOCAL DEALER'S PRICES

If you have any use for Doors, Windows, Storm Sash, Stair Posts, Mouldings, Porch Brackets, Columns or any kind of Millwork for your own buildings or as a contractor, don't buy elsewhere until you write us for our illustrated catalog. It quotes you at least 50 per cent lower prices than your local dealer or any retailer or "mail-order" house possibly could, as we are manufacturers with the largest mill in the world.

We sell our Millwork only direct to the user.

We ship anywhere in the United States and guarantee to make you a clean saving, freight included, of from 25 to 40 per cent on anything you order.

Just send us a postal with your name and address and we'll promptly send, postpaid,

Our Grand Illustrated Millwork Catalog

showing everything in the latest styles of High Grade Millwork at lower prices than you have ever thought possible.

You can get an idea by the few illustrations and prices in this small space of what a saving you can make by buying from our catalog, but you must see the catalog to fully appreciate this selling plan of ours direct to you.

Do not think of buying until you get our estimate.

Our work is all Guaranteed strictly up to the Official Grades adopted by the Sash, Door and Blind Manufacturers' Association of the Northwest, and if not exactly as represented in every particular, you can ship your order back at our expense.

Our lumber is first air-dried and then put through a scientific drying process. Joints are made with heavy hardwood dowel pins, glued with impotted glue, pressed together by heavy steam-power press. There is no "come apart" to our work.

Remember, you save 50 per cent, freight included, on your Local Dealer's prices.

We operate the largest mill in the world—165,000 feet of floor space (four acres)—have been in business since 1865—own our timber lands, saw-mills and lumber yards.

We carry a large stock and can therefore ship promptly.

We have no traveling men—sell only for cash. We are the only large manufacturers of sash, doors and blinds selling direct to the consumer. Our prices will astonish you. Don't buy anything in our line until you get our catalog, the grandest woodwork catalog published.

Your banker, or any banker in Davenport, Iowa, our home, will satisfy you that we are thoroughly responsible. Our catalog will explain everything to you. Write for it today. You will receive it by return mail, postpaid.

Modern Front Door $3.90 — Regular price $8.50

Windows 62c — Regular $1.59

High Grade Door 80c — Regular price $2.00

STAIR NEWELS From $1.60 to $4.25 — Worth $3.00 to $8.00

GORDON VAN TINE & CO., Station A85, DAVENPORT, IA.

WHO OF US, viewing the fine scenic panorama spreading across the bottom of these pages, would conceive, at the first glance, that the picture represented only a single year's work—that it was just one year from absolute wilderness to the charming scene here reproduced by the photographer's and 'graver's art? Yet, this wonderful—shall we say kaleidoscopic?—transformation was wrought in a twelvemonth through the intelligence and energy of a young man twenty-seven years of age, who has studied well the lessons of horticulture and has started out on a career for himself in a productive home of rare beauty, created from the wilds largely by his own toil. It is a lesson and an example of suggestive power and helpfulness, and to the young man or woman who contemplates the future with doubt, should lend encouragement and confidence.

Palmer S. Van Doren of Easton, Pa., an enthusiastic reader of The Strawberry and a practical worker in the strawberry field, is the young man who has achieved this almost phenomenal transformation and turned what was deemed a worthless piece of land into a productive strawberry and poultry farm worth, with its improvements, fully $20,000. This land was regarded by the public as all but valueless, but the eyes of the young man saw beyond the scrub trees, the sumac, the poison ivy and the brambles with which it was covered, and as the architect sees in clear outline the building he has been commissioned to plan and construct before ever he puts pencil to paper, so Palmer Van Doren saw in that three acres of primal wilderness the splendid vista which now exists in actual and beautiful reality. In September of 1905 Mr. Van Doren had to cut his way through a veritable jungle of wild growths; in September, 1906, behold a lovely field of strawberries, a flower and vegetable garden, a poultry house and yards fairly alive with extraordinary specimens of high-bred white Wyandottes and brown Leghorns, a large and handsome residence such as the most ambitious of us might be proud to own, and outbuildings and lawn to match. Aladdin himself with his wonderful lamp, never produced such marvelous changes—certainly none half so practical and serviceable.

Strawberries, Chickens and Success

"I made up my mind," says Mr. Van Doren in a note to The Strawberry, "that to succeed in this beautiful world of ours one must win success, and the winning of success depends on one's self-determination to accomplish." Had he thought, as all too many of our young folk do, that the "world owed him a living," and that all he had to do was to present the bill and collect the debt, that wilderness would be a wilderness still, and we should be deprived of the privilege of telling our readers of his work, and by actual illustrations showing how well, indeed, he is started on the highway

o success. Such an experience well may inspire the doubting to larger confidence, and all who seek a home and independence to renewed hope and energetic action.

Of his strawberry patch of four thousand plants Mr. Van Doren writes: "I set out this patch of plants last spring (1906) and worked all my spare time, assisted by the old gentleman you see in the photograph. I have followed your instructions to the letter; have kept all runners off and my plants never have been permitted to associate with a weed. Really, I don't know what a weed looks like. Such constant cultivation and hoeing has resulted in producing a patch the like of which people here say they never have seen. The picture I send you was taken June 15. Now (September 25) my plants are nearly twice the size they then were and show up finely. Everybody here is fairly wild over this patch, and I guess I will have all my neighbors growing strawberries before long. Some of them declare I will get as many as five thousand boxes next season; but that's a pretty strong estimate. Don't you think so? I shall mulch my plants with clean wheat straw this fall. I gave the soil a good coating of manure last fall, and another in the spring before setting the plants. I am cultivating them twice a week by hand. I am looking forward to next June when berries ripen. People tell me I am foolish to keep up my patch as I do, but I tell them to wait and see! Have had very little trouble; none at all save with white grubs, which killed about one hundred and fifty plants. Never lost one in any other way; in planting not one died. And let me say I would not be without The Strawberry. We await its coming each month, confident of finding something new and helpful in each issue."

Mr. Van Doren decided at the outset to combine poultry raising with strawberry growing, and his experience thus far has more than justified his decision in that regard. He says: "My first year in the chicken business ended September 3, and is entirely satisfactory. That branch of my work has netted me, after deducting all expenses and lots of hard luck in learning how to do it, $329.17. And in addition to the cash I had on hand 597 young pullets and sixty one-year-old fancy Dustin strain white Wyandottes and Model strain single-comb brown Leghorns. I sell eggs for hatching, guaranteeing 75-per-cent hatches, and have lots of orders—after people find out just what I have. Next year I hope to do better, as I am learning by experience, as one may do."

Mr. Van Doren's plan of growing truck is one worthy of consideration. He has one acre devoted to this line in which, he says, "I grow everything from parsley to egg-plant; in fact, about every vegetable there is."

Could one devise a more satisfying and promising business than this young man has made for himself? We do not wish to be

understood as referring invidiously to any honest employment, yet it must be apparent to anyone with "half an eye" that Mr. Van Doren's position is infinitely to be preferred to that of the man who must seek a job, or holds a job subject to the caprice of a "boss" or to conditions in the making of which he has had no part. Mr. Van Doren's occupation is his business, and it is in such immediate and delightful relation to his home and family life! Then the occupation itself, so full of interesting and varied tasks and opportunities, is one that grows and broadens with each day's experiences. There is the study of nature and the partnership with nature; the study of animal life with its infinite rewards; and the commercial side brings him into touch with the great outside world and its interests. One is to be congratulated, indeed, who has youth and strength and enthusiasm and such a home and such a business already established.

Mr. Van Doren is seen in the large engraving, resting on his favorite implement—the hoe—the person nearest the driveway. The elderly gentleman sitting on a basket in the center of the field is Mr. Van Doren's assistant, and the others are admiring visitors. The smaller of the upper engravings shows the fine flower and vegetable garden in front of the poultry house, and the larger one a front view of the poultry house with its wired-in runs for his thoroughbred poultry.

Practical Experience in Mulching

By A. D. Stevens

THE question often is asked, Does it pay to mulch the strawberry bed for winter? I have observed closely the difference between the mulched and unmulched bed, and have noticed in winter when the ground was freezing every night and thawing through the day that the mulched bed was kept nearly in uniform condition—slight freezing or quick thawing made little change in the mulched plants; while the unmulched plants were subject to "chills and fever" as I call it. And when spring came their sickened condition made it impossible for them to recover their strength sufficiently ever to catch up with those plants that were protected with an overcoat.

And the condition of the soil was so different that a blind man could readily detect the difference in picking time, as the mulched soil was moist and soft, while the bare soil was almost like a rock. The soil that is kept from freezing and thawing contains more nitrogen than that which is exposed to the open air in winter.

I find in my travels that most of the farmers in this state are apt to let their beds mat too thickly, which has a bad effect on our markets, as there are but few fancy berries going into them, while the markets are glutted with inferior berries. Then they wonder why it is that berries are selling so cheap! I have realized that quality is the first mark to rise to if we must win in the open market, and that can only be obtained with good plants, rich soil and plenty of cultivation.

Bridgeton, N. J.

PLEASURES are like poppies spread;
You sieze its flower, the bloom is fled;
Or like the snow flakes on the river,
A moment white, then gone forever;
Or like the Borealis race
That flit ere you can point the place."

Summer Setting of Strawberries

SOME folks think The Strawberry is unnecessarily insistent upon the advantage of spring setting of plants over that of any other season. But we are no more emphatic on this point than are other experienced strawberry growers, and the following letter written by E. C. Green of Medina, Ohio, which we find published in his local paper, indicates his feelings on this particular point. Mr. Green says:

"In common with other growers, I receive many calls through the summer months for strawberry plants, and very often when I sell plants at this season of the year I feel as if I had taken money under false pretense, for I know that with the care that must be given them they will be a loss to those buying.

"If you set your plants in the spring, you will have from five to fifty new plants from each one for fruiting; but if you set in the summer you will only have the one set, which will, in all probability, not be as good as any one of those fifty you get from the one set in the spring.

"Much more might be said against summer setting of strawberry plants. I know but little in favor of it under ordinary circumstances."

ONE of the essentials to the successful marketing of fruit of any kind is a neat and strong package, and everybody who has ever dealt with Wells, Higman & Co., of St. Joseph, Mich., knows how well their goods fill the bill. This company not only retains from year to year its old customers, but their rapidly extending trade shows how their products are appreciated by all who come to know them. Send for their catalogue at once, confident that you will get a square deal if you deal at all with them.

THE very title of the booklet put out by the German Kali Works is suggestive of its value and importance to the grower of strawberries. "Plant Food" is the title, and it deals with the facts of fertility in the soil in a way that is easy to understand and quite as easy to follow in actual practice. Few institutions have done more to help soil culturists understand the proper and economical use of commercial fertilizers than the German Kali Works, and we hope every reader of The Strawberry will take advantage of this opportunity to get this valuable literature. It is free to you if you will address German Kali Works, 93 Nassau street, New York, mentioning The Strawberry.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succesalon from the same dock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 65 cents; or given as a premium for 4 yearly subscriptions at 25 cents each.

Our paper is handsomely illustrated, 44 to 80 pages. 25 cents per year. 4 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE

85 Hogan Block Syracuse, N. Y.

Dr. Brigham's Poultry Class

Home study with progressive, successful practice at almost no expense.

We have secured the services of Dr. Arthur A. Brigham as associate editor, who will conduct "Dr. Brigham's Poultry Class," a series of twelve chapters, covering every phase of poultry culture, in a systematic, scientific, utility home course of study—equal to any $30 to $50 correspondence school course. If you want practical knowledge based upon a life-time of research you would not be without Western Poultry Journal for a dozen times its cost. We will send you our 32 to 80 page, illustrated monthly, one year, beginning with the first chapter for only 50 cents.

WESTERN POULTRY JOURNAL

232-234 Granby, Cedar Rapids, Iowa

Dr. Brigham's Poultry Class is the highest priced, most practical, exclusive featured article in the American poultry press.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and SPECIAL OFFER TO YOU.

R. R. FISHER, Pub., Box 86, Freeport, Ill.

240-EGG Incubator $11.75

120 Egg Size, $9.00
60 Egg Size, $7.50

Brooders equally low. Not cheap machines but the famous "Ideal"—guaranteed to be the surest and easiest ever made. Why not save from $5 to $10? Get our big 128 page, illustrated poultry book FREE.

J.W. Miller Co., Box 372, Freeport, Ill.

RAW FURS ONE MILLION WANTED!

My European contracts put me in position to pay top prices. Write for my special quotations. Address

A. E. BURKHARDT, C 53 International Fur Merchant Cincinnati, Ohio

STRAWBERRY FIELD OF JONES & HAVEN, CLIO, MICH., PREPARED FOR SECOND CROP

Some December Tasks for Strawberry Folk

DECEMBER is a month in which there is little to be done in the strawberry field, but as growing weather this year continued far into November, many growers have found it inadvisable to mulch their plants up to this date. So we again call your attention to this important feature of the work, confident that you would enjoy your Christmas more if your plants were properly covered from the winter's cold? In the November issue we gave such complete information regarding this work that we need not repeat it here. If you have not taken that advice and instruction fully into your inner consciousness, we suggest a careful re-reading of that part of the November number. We are gratified to receive so many letters as are now coming to us, showing that our readers are alive to the importance of this matter. Some very large growers, even in the North, write us that they now realize their failure in the past properly to mulch their plants has had much to do with producing a poor crop of fruit, and that it was especially difficult to sell even large and fine berries when covered with sand. Mulch, and again we say Mulch! And even if we were to say Mulch again, those who follow our advice would have no reason to object; indeed, we are sure we should receive their thanks.

A Memory Jogger

IN a note to The Strawberry, Messrs. Jones & Haven say that the bed shown above consists of one acre of land, set in the spring of 1905. That season was very unfavorable for them, the wet weather causing nearly one-half of the first setting to rot. We began to train, transplant and endeavor to get a full row before the close of the season. This we did fairly well, and to protect them from frost gave them a liberal coat of oat straw. In the latter part of April we removed a portion of the straw, and waited developments. As this was our first experience at strawberry raising you can imagine how anxious we were about the outcome. The month of May treated us to two frosts which injured our Brandywines very much, blasting fully one-third of the blossoms. The Crescents stood it better, and when we came to pick the crop, in spite of wet weather, frosts, and a drouth at picking time, we had 175 bushels of fine fruit, which netted us a good sum over expenses.

July 16 we picked the last berries. July 23 we mowed them and four days later burned the straw, leaves and weeds slick and clean. Then came the plowing out and cutting down the size of the rows; after which we gave the bed 400 pounds of phosphate as a reward for berries produced. The result has been marvelous. We were kept pretty busy for a while cutting runners, as every plant seemed to be trying to beat his neighbor. October 18 we had the picture taken and we assure you that the artist has not overdrawn the appearance of the field.

WE have said that there was little work to be done in the strawberry field in the month of December, but we did not say there was any lack of work on the strawberry farm. In fact, it is the man who puts in his time to the best advantage during the winter months that makes the best showing when summer comes with its many duties. For there are a hundred and one little jobs and "chores" which, if neglected in winter, interfere just when you can least afford the time that must be given to them. And don't forget that they must be done some time, or loss is bound to occur. Every plow, harrow, cultivator, roller, and even that small but essential implement, the hoe, should be put away in the dry. And if any parts are missing they should be ordered at once and all repairs made. Do we practice what we preach? We certainly do. The big farm roller is now at the blacksmith shop having an attachment placed in front of it for the purpose of drawing earth into the tracks made by the horses' feet as they draw the roller over the fields, so as to leave the surface perfectly smooth and free from indentures which otherwise would remain and interfere with the marking of the rows and the setting of the plants. The big spraying machines have been cleaned up, bolts examined, nuts tightened, and everything put in readiness for the first battle of the season of 1907. And any extra tools required for next year's work already are ordered. The only conveniences out on the farm these days are the manure wagons, and they are not standing still, either. Even the flower beds are in readiness for the bulbs and seeds that are to spring forth into summer glory and lend their beauty and fragrance to the world. Wherever a tree or shrub is to be set stakes are driven and everything done but the digging of the holes and putting them into their future homes. The biggest part of any job is the planning of it. Do your planning in the winter. Success is more than half achieved when this is done.

Some Winter Economies

REPORTS from all over the United States are to the effect that never before in all history has there been such a car-shortage as at the present time, and even live-stock men find it difficult to secure transportation of their animals to market. Manufacturers are working their factories night and day in an almost hopeless attempt to fill orders. Even the paper mills are so overrun that we have had great difficulty in securing paper with which to put out this mammoth Christmas issue of The Strawberry. We refer to these matters to suggest the

Crates and Boxes

importance of ordering your box and crate material right away. Last year thousands of dollars worth of fruit went to waste because the growers neglected until too late to order packages in which to ship the fruit. A few days ago while visiting some of the largest box factories in the country our attention was called to this matter and we were told that many growers were making the mistake of not ordering their fruit packages until the actual need for their use had come. At that time every factory was flooded with orders, everybody wanting and actually needing the goods at once. This was impossible, and the result was an incalculable loss and the ruination of some of the fruit growers. Even though you consider it too early to order, now is the time to get the catalogues, study the goods and prices, and get your order in early enough to insure your getting the packages you need and at the right time. We certainly do not wish to hear that any reader of The Strawberry has suffered loss through too long postponement of ordering; and we warn you in time that there is real danger in delay.

Hauling Out Manure

AS most growers are too busy to haul out manure during the summer months, the work must be postponed until winter, and the earlier it is applied the better. It is not a good plan to leave any ground bare during winter, and there is no better covering than stable manure. We have always noticed that in breaking up ground in the spring the part that had been covered with manure was much mellower than that which had had no covering at all. Did you ever notice the mellow condition of the ground upon which even old straw had been permitted to lie during winter? While straw thus improves the mechanical condition of the soil, it adds nothing to it in the way of plant food, but manure not only makes the soil mellow; it adds largely to the fertility of the soil. Here are some reasons why it is better to apply the manure early in winter than it is in spring. 1. Your ground is frozen, which prevents the team and wagon from cutting up the surface of the soil, which would make no end of trouble in the way of clods. 2. By hauling manure in winter if there is any of the larvæ of the white grubs in the manure, it will disturb them and bring them to the surface at just the right time to insure their being killed by freezing. 3. It gives the manure longer time to be leached out and its plant food absorbed by soil grains. 4. By doing the work in winter this work is done when the teams have little to do and help easily is secured. We have known growers to leave the manure until spring and then the work was neglected entirely and the manure allowed to remain in the pile for another year. This not only deprived the plants of what belonged to them, but

Order Now for Future Delivery
The Only Way to be Sure of Getting a
Detroit Tongueless Disc Harrow

When You Want It

This is to notify farmers everywhere that we are now accepting orders on our Celebrated Detroit Tongueless Disc Harrow for future delivery. And that this is the only way we guarantee to make shipment of Harrows at the time they are wanted.

The Detroit Tongueless Disc Harrow (the only original patented Tongueless Disc) sold like wild fire everywhere last year—its first year on the market. So much so that we were returning orders every day, unable to supply enough machines.

Indications are that we will have even a bigger trade this year, and that we will have to refuse many orders in the rush of the season.

But—to all who send us advance orders we guarantee to make shipment at time requested, until further notice.

Let Us Quote You a Special Price on the Detroit Tongueless Disc Harrow

We sell direct to the user. We'll save you all the middleman's profits.

Our Harrows are not for sale by Dealers anywhere. Be sure to remember that. No dealer can sell you a Detroit Tongueless Disc Harrow.

We Allow 30 Days Field Test FREE

on every Harrow to prove that they are exactly as represented.

We pay all freight to your station.

Write at once for our FREE book and other valuable information.

Let us quote you a price on this Harrow.

We give extra dating on advance orders.

The Detroit TONGUELESS Disc Harrow is the most valuable improvement of the age in an agricultural implement.

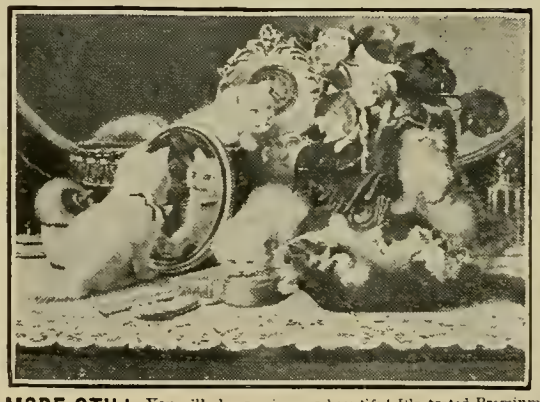
Front truck takes the weight of frame and controls movement of harrow. Double levers make easy handling.

Doing away with the Tongue does away with all side draft—all neck weight—all crowding of team in short turns. Saves horses and turns quicker on the corner. Ball bearings take the end thrust.

Other specifications and points of superiority fully explained in our free catalog. Write us a postal today and get full information in regard to this wonderful new Harrow. Address

American Harrow Co., 4543 Hastings St., Detroit, Mich.

FREE! "PLAYFUL KITTENS" FREE!



One of the cute kittens is looking into a hand mirror, another listens to the ticking of a clock, another is tasting of the cream, another catches the odor of the beautiful roses, while the fifth touches a glove, carrying out the actions of the *Five Senses* which the picture represents.

Rich in coloring, exquisite in execution, the original is one of the best animal-life paintings. Our reproduction is an exact duplicate in every tint and color. Sizes 15x20 inches.

OUR OFFER: **Farm and Home**, our 32 page national Farm and Family semi-monthly, now reaches over **400,000** homes. To introduce it into thousands of homes where it is not now taken, we will send you FARM AND HOME **six months for only 20 cents** (two dimes or ten 2-cent stamps). Further, if you will send us at the same time the name of one other person to whom we can send a **free** sample copy of FARM AND HOME, we will **send** you **postpaid**, this beautiful work of art.

MORE STILL You will also receive our beautiful Illustrated Premium List, containing over 200 useful articles and the most remarkable offers ever made. **Agents wanted** everywhere. Liberal commissions.

Address, mentioning this paper, **FARM AND HOME, Marquette Building, Chicago, Ill.**

FOUR EVERGREENS FREE

We grow our Hardy "Blizzard Belt" Evergreens in ten million lots. To prove they are healthy, well rooted and vigorous we offer to send **Four Fine Sample Trees**, 3 years old **Free** to a limited number of property owners. Mailing expense 5 cts which send or not as you please. A postal will bring them. Our **Catalogue** containing 64 colored plates of our **Hardy "Blizzard Belt"** Fruits, Evergreens, Ornamentals, etc., with a mine of valuable information for fruit growers, free for the asking. Write to-day.

THE GARDNER NURSERY COMPANY, Box 802, Osage, Iowa.

FRUIT TREES

Start your orchard now. Fortunes have been made by it. Start right by planting hardy, well cultured stock, that will live anywhere—guaranteed—materially less than agent's price—ask for prices on 1,000 lots. Illustrated Catalogue free.

CHATTANOOGA NURSERIES

Box 10 CHATTANOOGA, TENNESSEE

all this time great waste was going on, for when finally the manure was spread it had lost much of its fertility. Now is the time to do the little things, the sum total of which is very large. Remember that "mony a mickle maks a muckle."

What Two Years of Experience Has Wrought

By W. H. Rogers

AS a subscriber to the strawberry I wish to say that I would not think of being without it. When I subscribed for the magazine, I expected to bother you a good deal with questions, but I have found all my problems solved in your answers to others, without the trouble of writing.

I have had two years of experience in strawberry growing, and my strawberry plot this year is 180 x 293 feet in size. My tickets show 8,340 baskets as the season's product, not counting what my wife and others picked and for which no tickets were made. I think that, all told, I had a total of 9,000 baskets.

My largest picking was on the 2nd of July—1,500 baskets; and one week from that day I picked 1,061 baskets. I began selling June 18, and sold up to July 20, selling every day save Sundays, which I think not a bad showing, considering that I had seventeen varieties. By selecting three or four varieties from them and under the same conditions, I am confident I can increase the yield by one-third.

All of my varieties gave me a profitable yield. Senator Dunlap, Warfield and Dornan are my choice for quality and profit. And I have won a name as a strawberry grower that is worth something in a business way. My fruit was fine and I sold the berries at the following figures: Choice, 20 cents; No. 1's, 15 cents; No. 2's, two quarts for 25 cents, and canning berries at 8 and 9 cents per basket by the crate. I had no difficulty in disposing of all I had, more than one-half being taken from the packing house.

I burned over my patch after the picking season was over, plowed and seeded to buckwheat, plowed buckwheat under and gave the whole bed a coat of stable manure; sowed fall rye, which is just now coming up. I worked the manure well into the soil with drag and disc harrow.

Cobourg, Ont., Sept. 29.

Mr. Rogers' experience suggests the meaning and value of quality to the strawberry grower. Notice that magnificent field shown at the foot of this page and those figures—20 cents for "choice," 15 cents for firsts, 12 1-2 cents for seconds and from 8 to 9 cents for the remainder when taken by the crate—those figures don't appear so surprising. Quality stands out all over his field—quality of plants, quality of cultural methods. Those prices indicate the quality of picking and packing. Yet Mr. Rogers has had but two years' experience—a most encouraging fact for beginners.

Don't you see the truth of what we so frequently urge, that there is not only an inadequate supply of choice fruit, but that there is really no hope that there ever will be such supply of it as will meet the demand for it? Over on South Water street, Chicago, the most wonderful market place in the world, one certain man's apples get $1 premium per barrel over any other apples that come to that market. He got that premium twenty years ago; he gets it today, we understand. Why haven't ten thousand apple growers risen up in their dignity and shown Mr. Winne (suggestive name, isn't it?) that they could do just as well as he did? We don't know, and you perhaps couldn't tell why. But the facts are suggestive, and we hazard the guess that there are men right within walking distance of Mr. Rogers' beautiful strawberry patch who have been growing strawberries for many years and yet are glad to get 10 cents for their firsts (never had any "choice" enough to be dignified by that title) and let the rest of their crop go at—"any old price!"

What The Strawberry hopes to do is to make every one of its readers get this fact so deeply imbedded in their inner consciousness that it will act as a motor to purpose and set them to work with a determination to make quality a first consideration in everything that relates to the production of strawberries. When this is done, success already will have been achieved, and it will be such success as gives joy to the grower—a moral satisfaction of even higher value in many

VIEW OF W. H. ROGERS' STRAWBERRY FIELD, COBOURG, ONTARIO

Something Beautiful for Xmas
A STRAWBERRY SOUVENIR SPOON
The Berry Handsomely Engraved
IN A BOWL OF GOLD
Neatly Boxed and Mailed for $1.50
Complete Satisfaction Guaranteed
A. SMITH, Jeweler, 151 St. Joe Street THREE RIVERS, MICHIGAN

A Cracker-Jack Idea
YOU have the fresh popcorn and other necessary material, and I have the formula for making the most crisp, delicious and healthful Cracker-Jack on earth. Now, what I propose to do is to send you my formula with complete instructions for making **Potter's Famous Cracker-Jack** if you will send me 25 cents. Why pay a big price for a little bag of stale cracker-jack when you can learn how to make my famous brand at so small a cost? Send me 25c in silver or 2c stamps and I will forward my formula and full information by return mail. It will tell you how to make your own cracker-jack, and earn big money.
Clark Potter, The Cracker-Jack Man, Three Rivers, Mich.
We vouch for Mr. Potter.—KELLOGG PUBLISHING CO.

Dewberries
One of the most profitable crops the small fruit-grower can raise
Now is the time to plan for next spring's planting. Write for information about plants and culture to
R. D. 1, Box 5 T. H. Smallwood, FORT SCOTT, KANSAS

of its aspects than the financial returns themselves. Beauty is as does; there is recompense in doing things well that no amount of money could represent.

Better Fence and Still Better

It takes 50,000 miles of fence every month to keep up with the American farmers' orders for AMERICAN Fence. That's enough every month to go twice around the world—and it's over 80 per cent of all the wire fence made.

There's only one reason why four out of five American farmers buy AMERICAN Fence—it's better fence.

We keep the best Fence brains in the country always at work, seeking constantly to improve

AMERICAN FENCE

And on account of making more fence than is made by all other fence makers combined, it costs us less per rod of fence to work out and make fence improvements than it would cost any other fence manufacturer.

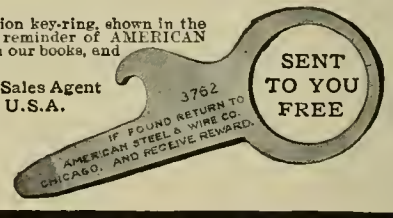
And because we can distribute the cost of improvements over so many million rods of fence in the year, we work out improvement after improvement every year without increasing the cost of AMERICAN Fence to you.

Better galvanizing now makes AMERICAN Fence—without increase in price—cost much less—figured on a per-rod per-year basis, because it lasts much longer.

NOTE—I want to send you the combination key-ring, shown in the corner, with our compliments, as a continual reminder of AMERICAN Fence. We register your name and number on our books, and return keys without cost, if found and sent us.

FRANK BAACKES, Vice-Pres. & Gen. Sales Agent
American Steel & Wire Co., CHICAGO, U.S.A.

Drop me a postal—tell me how much fence you need this year. I'll write you personally about AMERICAN Fence and send you this registered combination key-ring, screw-driver and bottle-opener



How an Old-Timer Treats the White Grub

By S. H. Warren

I HAVE been very much interested in The Strawberry from the start, but particularly so in the November issue, which treats on the subject of the white grub, for I think it is the worst pest the strawberry grower has to deal with, notwithstanding Mr. Johnson of Massachusetts says it is so easy to get rid of. Although we intend to set our beds on land that is free from them, we often find we have them in some sections of the bed so numerously as to eat most of the plants for many square feet, if not attended to in season, while most of the bed is quite free from them.

Although this is my fifty-third year in growing strawberries and the plants commercially, I have been considerably troubled with this pest this year, and, as is often the case, they worked worse on new, high-priced plants that I bought this spring. When these plants began to send out runners the grubs began to do their destructive work, thinning out the plants. So then, to save the others, I took up each plant with a manure fork, with a lump of earth, and turned it roots up and picked out all the worms I could find, and before setting them back dug out the row where they grew, carefully examining the earth as it was thrown out and before resetting them dusting that ball of earth freely with tobacco dust, putting in air-slaked lime at the bottom of the trench. I then plowed between the rows, following this with a cultivator, and picked up all the worms I could find. It was quite a job, but I was satisfied with the results.

The majority of strawberry growers have not had the experience that some of us older growers have, and the first thing they know about the white grub is they see their plants dying and, upon examining them, find they have their roots eaten off by this pest. Now the vital question with all who find what the trouble is, is this: What is the best thing to do under the present circumstances, not how shall I avoid it next year (this should be considered later), but what is the best thing to do now; for these worms are killing the plants that I have already spent much time and money on?

The following is my way of doing: Where I find only here and there a plant eaten off I go through the rows in the warmest part of the day, looking to the center of the parent plants to see the condition of the last new leaf just forming. If there is a worm under the plant which has begun to eat the roots of that plant, this new leaf will wilt first, and if you carefully dig under one side of the plant you can capture the enemy and save the plant. If not taken then he not only will kill the first plant, but many others besides on the same row, leaving a long vacant space. Where the land is naturally moist, I find it safe to set the plants where the grass sod has just been turned, for the parent of the grub does not use this land for its young grubs. My rule has been to observe carefully when plowing sod land, and if I find six worms (grubs) on the bottom of the furrow within one hundred feet, I set no plants on this land till it has been planted to some hoe crop for two years.

Growing strawberries has always been my hobby, so I am now pretty well known in this vicinity as "Sam Warren the strawberry crank." Naturally, when I knew of your sending out a publication called The Strawberry I subscribed for it at once, and I can truthfully say I have received from its pages many times its cost, although I have had fifty-three years' experience in this branch of horticulture. It seems to me that to those who are just beginning in the business, on a small or large scale, it must be a gold mine.

I have taken much pleasure in growing a few seedling strawberries for many years, and within the last few years have propagated a few good ones; but the best one I have ever grown I put on the market last spring, I have named it "Golden Gate." I think it has more good points than any other berry I have ever grown. In many ways it resembles the Marshall, but it will succeed where the Marshall fails. Seven berries have filled a quart basket. It is extra quality and sells at the highest price. It won $23 in prizes on seven quarts at the Massachusetts Horticultural exhibition in June, 1906.

I have picked since September 1 about 300 pint baskets of Pan-American strawberries, grown on a small bed.

Weston, Mass., Nov. 6.

READ our Christmas Present Offer. You couldn't give a friend a more acceptable token than The Strawberry.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

THE end of our first year is here, and we are looking over into 1907 with interest to discover, so far as we may, what it is to mean to our school and its great army of pupils scattered all the wide world over. Surely, there is no other school in the world which has been in existence less than a twelvemonth that can boast so great a membership and one so widely scattered as our own.

You have been asking us questions for answer in this department and we have tried to answer them with intelligence, basing them upon actual experience. Now we feel that it is our turn to ask a few questions, and if you will answer them, it will aid us greatly to make this school of ours of greater benefit to all in the year to come than it has been in the year now drawing to a close:

1. Have all questions been answered with such clearness as to enable you to understand them and put their instruction into actual practice?
2. What have you to suggest that will make this department of greater value to all its members?
3. Have you asked all the questions that you would like to have answered?
4. Do you know of anyone interested in strawberry production, either for home use or market, whom you would like to have receive The Strawberry? If so, send us his name and address and a copy will be forwarded at once.
5. We desire that everybody interested in strawberry production shall be a member of this school. What can you do to encourage your friends, not now members, to join?

"A Merry Christmas" to you one and all—you in far away Australasia, and in cold Norway, and you in sunny France and "Merrie England" and beautiful Bohemia, no less than to our own fellows of this great republic of ours and our cousins of "Our Lady of the Snows"—fair Canada. If the past year has been valuable to us, let us not be content with that, but push on to greater things in the year to come. Vale, 1906! Hail, 1907!

Rev. E. L., Turlock, Calif. Will you please give me some advice about irrigating strawberries in the San Joaquin Valley of California.

We assume that your reason for asking about irrigation is because of the alkali in the soil and the influence of irrigation to bring the alkali to the surface. In view of the fact that investigations along this line are in progress, we would advise you to address your inquiry and state your particular problem to Prof. E. W. Hilgard, Director of the California Experiment Station, Berkeley, Calif.

J. A. C., Shelby, Ohio. Will swamp grass make good mulch for strawberries? If so, how thick should it be spread? The grass is cut and tied in straight bundles.

I am a reader of The Strawberry and appreciate it very much. Think every person who grows strawberries should take it.

Swamp grass will make an excellent mulch for strawberries, and you certainly have it in splendid shape to do the work easily. All you will have to do will be to place the bundles over the rows, cut the string which ties them, and spread them out. A mulch of this material two inches thick will serve your purpose.

F. E. C., Byron, Minn. I have been much interested in your statements in The Strawberry concerning sown-corn for mulching, and I wish some more information, as I need a substitute for straw because all the neighboring grain fields are infested with quack-grass, Canada thistle and toad-flax. How much seed do you sow to the acre?

2. Do you use a grain drill?
3. When is the best time to sow it?
4. When should it be cut?
5. How would it do to sow it on land where clover sod has been plowed, after taking off a crop of hay the last of June?
6. How much land is required to grow enough of the corn to cover one acre of narrow-matted-row of strawberries?

The amount of seed sown to the acre depends largely upon the quality of the seed used. We always make a test of several hundred grains, and if the germinating power runs high, we sow about seven pecks to the acre; but if the seed shows only about 80 per cent good, we sow about ten pecks to the acre. This fall we have carefully selected the seed corn we are to use for this purpose next spring, and are drying it with the expectation of having an extra quality of seed.

2. We use a common Superior grain drill, which is so arranged that it will sow peas or corn with perfect satisfaction.
3. We generally sow from the 1st to the 10th of June, but we think the middle of June would be sufficiently early.
4. The cutting should be done when the leaves begin to ripen, and if the work is done in the morning, when the stalks are tough, there will be very little wastage from falling blades. If it stands straight, a very good way to cut it is with the self-binder, but if it is blown down and tangled, use the mowing machine and follow the same methods as in cutting hay. A hay rake, if used when the stalks are damp, will rake it up without wasting the blades. Then pile up and leave until the plants are ready to be mulched.
5. If the season be favorable, a very heavy crop may be grown by sowing the corn after the clover hay has been cut and the ground prepared. That is, if it is so the corn may be sown by July 1.
6. We cannot give you a definite answer, because the amount grown per acre varies according to the season and condition of the soil; but one acre, where the crop is good, will cover from two to three acres of plants. If you grow your berries in a narrow row and merely cover the plants, an acre of fodder will go even farther.

R. E. J., Havensville, Kan. I have been a subscriber to The Strawberry since last spring at which time I set 1500 plants, but as I was an amateur and did not order The Strawberry until after I had received the plants, I was not qualified to set them as they should have been. The consequence was that I lost all but about 425 plants. But this was partly owing to the dry and windy weather at that time. Having lost so many I let the remaining vines make all the runners they would after the plants had become strong, intending to reset some of them this fall; but, owing to dry weather and lack of time, I did not get to do so. Will it do to set the runners in the spring by taking up dirt with them?

2. Will ground on which sweet corn has grown and which is very mellow do to set out to berries in the spring, if given a good coating of well rotted manure this winter and then turned under in the spring?
3. What late varieties would be best suited to this part of the country?

I do not want to make a mistake again. I want to report a great success and big red berries the next time. I assure you of my appreciation of The Strawberry.

We do not encourage anyone to dig plants from a fruiting bed in the spring, but as circumstances have prevented you from filling in the vacancies this fall, the work may be done next spring. Simply make holes in the vacant spaces where you intend to fill in, then take up the strongest plants, allowing as much dirt to

adhere as will do so, and set in the holes. The mother plants and those which are left will produce some berries, while those reset will fill in the vacancies so that a full crop will be secured the following year. The reset plants should be given frequent hoeings until the berries have all been picked from the other plants. In a case of this kind we would not recommend burning over after fruiting season. Merely mow off the tops of the vines that fruited, leaving all the foliage on the reset plants, then cultivate the entire bed the rest of the season.

2. Ground that recently has been in sweet corn will be a desirable place for strawberry plants next season. Give it a light dressing of manure this winter, then plow next spring and mix thoroughly before setting plants.

3. Brandywine, Dornan, Pride of Michigan and Sample will be good late varieties for you to set. We regret that you did not become a reader of The Strawberry earlier, as it would have saved you heavy loss.

L. J. G., Batavia, Ill. In selecting mother plants for the breeding bed do you take the ones that produced most berries in fruiting bed first season they bear? Do you transplant them immediately after they are through bearing? Do they produce young plants that fall that are right to set in fruiting bed the following spring? If not, how do you proceed?

2. How many crops of plants can be taken from one mother plant?

3. I have about 100 plants started from seed planted June, 1906, in various sizes from nearly nothing up to good-sized plants. Kindly give full directions how to proceed with them in spring regarding runners, fruiting, etc.

In making selections from mother plants with a view to improving varieties, we must first make a study of the particular variety in hand to learn what are its strong and its weak points. Then proceed to eliminate the undesirable and to develop the points desired. After twenty years' experience we have discovered that it is unnecessary to allow the mother plant to fruit before making selection. While it is quite impossible to outline a complete method of plant breeding in the limited space at command, we can yet give you a few fundamental rules that will serve you at the outset. If you have a variety that possesses many good points, such as perfect foliage, and produces good fruit, but appears to be lacking in the power to produce as great a quantity as it should, the proper way to improve this variety is to make a close inspection of all the mother plants about the 1st of August, staking the plant which at that date has built up the most crowns, and numbering each stake. The plants should be gone over every two or three weeks and a close watch kept upon the plants you have staked. Take with you a record book and make notations of the number of crowns each staked plant has made since the last inspection. Also the number of runner plants each mother plant has made, and the vigor and general performance of all should be recorded. Each staked plant should be allowed to produce at least ten or twelve runner plants, as this will determine whether the particular plant has power to produce crowns and runner plants at the same time. At the close of the season, the mother plants that have the largest and most vigorous runners —in other words, the plants that make the highest records—are the ones, of course, that should be given preference. No doubt there will be several mother plants that will show superior qualities over all the rest. The following spring from each of the mother plants showing the greatest gains take six or eight of her progeny and set in another bed, giving each set the same number as that borne by the mother plants from which they came. In removing these plants be careful that the mother plant or the other runner plants be not disturbed, as these are to be left for fruiting purposes to show their worth in that particular. After the fruiting season is over, if you have kept a close record of the mother and her progeny, it will be easy to determine which one of these has given the largest yield of fruit. Then go to the several transplanted plants taken from this particular mother plant and stake it to indicate that it stands at

FREE GREAT CROPS OF STRAWBERRIES AND HOW TO GROW THEM—— **1907**

THE MOST VALUABLE book on strawberry growing ever written. It's worth its weight in gold, because it tells in a plain way just when and how to do every detail of the work, to grow big crops of fancy strawberries.

Tells How To--

Enrich the ground and how to handle the soil to make the plants do their best.

Prune the plants.

Set them and

Properly mate different varieties, so that every bloom will develop into perfect berries.

Explains the difference between a poor, unfruitful plant and the kind that is strong in its fruit-producing organism, and it tells where to get this kind.

Treats on Spraying, mulching and marketing. In short, it instructs the reader on every point from the time of preparing the soil clear through the season until the big, red berries are picked. It also gives complete instructions on preparing the plants for a big second crop, and lots of other good things not mentioned here.

Written From Actual Experience by the world's greatest strawberry expert. Gives the history of the biggest strawberry farm in the world and tells why it grew so big.

This Book Contains 125 pictures of strawberries and strawberry fields, showing actual results obtained by growers who follow the instructions laid down in this book.

If You Want to be the Strawberry King in your locality, just send us your name and address. plainly written, and the book will be mailed to you absolutely free. Address

R. M. KELLOGG CO. Free Book Department

THREE RIVERS MICHIGAN

NOTE—All those who received catalogue in 1905 and 1906 already are on our mailing list and will get the book in the early days of January without asking for it

AN abundance of fruit of highest quality, finely colored and flavored, is the direct result of supplying a complete fertilizer containing from 7 to 12 per cent. of POTASH to the tree, vine or bush.

"Plant Food" is a book well worth a place in the library of any fruit grower. We will gladly mail it to all applicants.

GERMAN KALI WORKS
93 Nassau Street, New York

SAN JOSE SCALE
AND
INSECTS

Are easily killed by Takanap Soft Naphtha Soap. Endorsed by U. S. Government and State Experiment Stations. Write for Sample and particulars.

TAKANAP CO., - - - DARBY, PENNA.

Steel Roofing, $1.50 Per 100 Sq. Ft.

New, painted both sides, most durable and economical roof covering for Houses, Barns, Sheds etc. **FREIGHT PAID TO ALL POINTS EAST OF COLORADO,** except Oklahoma, Indian Territory and Texas. Prices to other points on application. At this price, we furnish our No. 15 Flat Sheets, 2 ft.x2 ft. At $1.60, we furnish the same in corrugated like illustration. We can also furnish this roofing in 6 ft. and 8 ft. lengths at an advance of 25c per square. Ask for our **FREE** Illustrated 500-Page Catalog No. B. F. 733 on Lumber, Roofing, Wire Fencing, Hardware, Furniture, Clothing and General Stocks from Sheriffs' and Receivers' Sales. We bought the Fifty Million Dollar St. Louis World's Fair.
Chicago House Wrecking Co., 35th & Iron Sts., Chicago

RHODES DOUBLE CUT PRUNING SHEAR

Cuts from both sides of limb and does not bruise the bark. We pay Express charges on all orders. Write for circular and prices.

RHODES MFG. CO.
Dept. 11 GRAND RAPIDS, MICH.

POWER SPRAYERS

The most complete line built. 16 styles—meet every possible requirement. All kinds of spraying accessories. Send for catalogue and prices, stating your requirements. Mention this paper.

Wallace Machinery Company
CHAMPAIGN, ILLINOIS

Souvenir Postal Cards Free to All

We will send, all charges prepaid by us, one Free Package of Assorted Souvenir Postal Cards to anyone who will send us one new yearly subscription to American Stories and ten cents to pay for the same. Each package contains 10 different Souvenir Postals, beautifully executed, ready for mailing. **American Stories, Department T. X., Grand Rapids, Mich.**

AGENTS WANTED. Profitable work introducing our worthy goods into your own community. Employ all or part time selling monuments. Special inducements. Do your friends a favor and make some money. Investigate this liberal offer at once. Make the winter count.
MOORE MONUMENT CO., Dept. 54, Sterling, Ill.

the head of the first series selected. Also give it its proper credits in the record book. These plants that stand at the head should be allowed to make all the strong runners possible to be used for propagating purposes for that particular variety. Remember, this is but one year's work; this line of work should be kept up indefinitely along the same lines. Thus it will be seen that to improve plants by selection requires a great deal of thought, close observation and infinite patience.

2. Only one crop of plants may be taken directly from the selected mother plant; but continued selections are made from the progeny of that plant in succeeding generations.

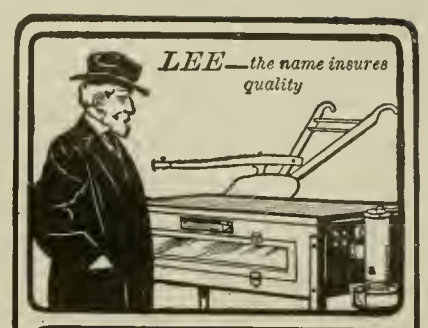
3. The only way to handle seedling plants is to give each plant a number and allow each one of these to make ten or twelve runner plants, and treat them in the same way as in the breeding bed as above described. You will find that the greater number of the seedlings will amount to very little, while others may prove to be of sufficient value to justify you in giving time to them in the way of selection and to improve them for general introduction.

Miss G. D. B., Belmont, Mass. Regarding the furrow for winter drainage: My rows are set to the hill system and are thirty inches apart. I have tried making the furrow as directed, but it seems to me that the earth thrown out is going to leave the plants in a kind of trench, and so hold the water around the plants. Will you please explain how the water will drain from the plants into the furrow?

From your description we judge that you have used too wide a shovel in making the furrow for drainage. In making this furrow you should use a shovel about three inches wide, then little dirt will be thrown up each side of the furrow. As you have made a mistake in this direction, we suggest that you go along the rows with the hoe and make cuts in the ridges on either side of the furrow, so that the water may get into the drainage. These cuts may be made about a rod apart, and by putting them in the lower places the water readily will find them.

J. A. E., Hilaire, Minn. Will hard freezing hurt the strawberry plants after they are set?
2. How many days' transportation will strawberry plants stand without being injured?
3. Would it be advisable to take plants from a near grower, and avoid delayed shipments?

Freezing that occurs immediately after plants are set does not appear to injure them seriously. We have had the ground freeze two or three inches deep after the plants were set, and only a small percentage of them were injured. However, the



CHICK MACHINERY should be as carefully selected as farm machinery. It don't pay to buy inferior, cheaply constructed Incubators and Brooders any more than to buy cheap plows, buggies, threshers, etc.

"MANDY LEE"
Incubators and Brooders
are as well built, as reliable, and as big money-makers for the farm as a plow or a thresh-ing machine. They've got the "staying" quality—easily the best line of "chick" machinery on the market today.

Built of Redwood or White Pine, double walls, lined with cotton-batting, cardboard and asbestos both in sides, top, and around heater.
The only incubator in which heat, ventilation and moisture—the three essentials—are under separate and perfect control of the operator, besides other features equally as important.
SEND FOR CATALOG. Tells about "Mandy Lee" Brooders, too—the only kind in which chicks get NATURAL heat in a NATURAL way.
GEO. H. LEE CO. Omaha, Neb.

1907 Catalog FREE Describes and prices 45 varieties fancy poultry and eggs
S. A. HUMMEL, Box 13, Freeport, Illinois

A $100 XIXTH CENTURY FURNACE for $59

Now sold direct to users. Has riveted joints, rocking grates and 3 in. thick lifetime firebox. Only $15 down Anyone can set it. Book free. Schafer Furnace Co., Box C, Youngatowo, Ohio.

JOIN OUR COLONY OF NORTHERN FOLKS

WHY spend another winter in the cold North? Our lands are especially adapted to the strawberry, to poultry raising, to truck growing. Markets close by. Cheap rates to Eastern cities. Work for all. Easy terms.

Honest Men Helped to Homes

Free Schools. Free City Lots. Free Fuel

Free from malaria, mosquitoes and epidemical diseases. **Grand opening in January, 1907.** Special excursion rates to this place. Address

1906 COLONY COMPANY
(WAUGHTEL)
FOLKSTON, GEORGIA

freezing will make the crowns or body of the plant quite dark, and if a plant were broken in two after the freeze it would appear as if killed. But a few days of warm weather will start them up as though nothing had happened.

2. Our own experience in shipping plants is that they will keep for several weeks after they are packed, provided they are not subjected to any careless treatment, such as putting the package close to a hot stove or other heating apparatus; or setting them out in a hot, dry wind; or pouring water over the package and then setting them in a cellar. Last season we made a test by shipping a box of plants a distance of 800 miles; then we ordered the plants shipped back to us. The records show that they were packed in the box for ten full days after digging, yet when opened up after their return they were as fresh as when shipped, and grew luxuriantly when planted.

3. If your neighbor grower has a regular propagating bed and is careful in selecting his plants to choose only from strong, well-bred mother plants, it would be all right to secure your plants from him. It is our experience, however, that very few growers know anything about the breeding and selection of plants and how to bring them to their highest state of development.

M. D. T., Itasca, Wis. I have a piece of ground on which no crop was grown last season save some green stuff, which I plowed under, after which I gave it a good coat of manure; plowed it again in October very deep. What do you think of my way of preparing a new bed for strawberries?

If the green crop you turned under was not heavy enough to sour the ground, we should think that your method should put the soil in fine condition. The fact that you replowed the ground in the fall will overcome the tendency of the green stuff to sour the soil. The only improvement we would suggest is the sowing of rye after breaking it up the last time.

F. M. P., Lebanon, Ind. We mowed our strawberry vines and let them get thoroughly dry and then tried to burn them and they would not burn. There was scarcely any mulch on the ground. Ought we to have scattered straw over the ground before trying to burn them?

2. In the case of plants that are raised in double and single hedge rows should all the old plants be left for second crop, keeping all the runners off, or should the greater part of them be dug out and let new plants fill the row?

When there is no mulching on the ground it is rather difficult to get fire to pass over the entire patch with nothing but dry foliage to consume. But the dry foliage may successfully be burned by taking a forkful of dry straw and setting it on fire. Then carry this forkful of burning straw over the rows of plants, holding it close to the ground. The burning straw will fall from the fork and make a continuous blaze along the row. The small amount of litter left on the ground

The Dodge Potato Digger

Embodies New and Improved Features That Have Been Thoroughly Tested and Accepted by Leading Potato Growers

THE DODGE DIGGER has but two wheels; is of light draft; requires no lugs on wheels; is strong, well made and easily handled. It has a low-down separator of unequalled capacity. Separation takes place under the axle in a space of 27 inches square, leaving potatoes in a narrow row. Separator may be changed by simply moving the separating lever.

It Saves Time
It Saves Money
It Saves the Potatoes Dug By It

PATENT PENDING

Don't buy a potato digger until you have thoroughly investigated the merits of the **Dodge Potato Digger** Write at once for our catalogue. It is FREE.

ARMSTRONG MACHINE CO. Three Rivers, Mich.

NEW ZEALAND

Is the Land for the Traveler, the Health Seeker, the Home Seeker

A Beautiful Fertile Country Down in the South Seas Sixteen Days' Steam from San Francisco

THERE is room in New Zealand for Thousands of Settlers. Rich Soil. Temperate Climate. Abundance of Water—**The Ideal Land for the Farmer.**

A pleasant country winter and Summer. No snowbound winters. No droughts.

As an **Agricultural, Meat-raising and Dairying Country** New Zealand has no superior. Its Farm Produce commands the Highest Prices on the world's markets.

Cheap Transit for Farmer's Produce, Government owned railways.

Government land is obtainable on easy terms; principal form of tenure, long leaschold. **Government loans to new settlers at low rate of interest.**

Government and municipal ownership of public utilities. Government telegraphs, insurance, savings banks, government trust offices, etc., etc. Government Sanatoria and Hot Mineral Water SPAS.

New Zealand's death rate is the **LOWEST** in the world. Its wealth per head of population is the **HIGHEST** in the world.

A country of strange and beautiful scenery. Marvelous geyserlands. Hot Lakes. Lovely Rivers. Magnificent Mountain Lakes. Grand Alpine Scenery. A Splendid resort for Americans who wish to escape the winters of North America.

When it is **Winter** in the United States it is **Summer** in New Zealand. Summer time is cool and pleasant for travel in New Zealand,

Excellent trout fishing and deer stalking. New Zealand's fishing waters, thousands of miles in extent, carry the largest trout known to anglers.

NOW is the time to visit this new and interesting country. The **New Zealand International Exhibition,** in the city of Christchurch, is now open and will remain open until April, 1907. Good hotels. Cheap transportation rates.

Mail steamers from San Francisco to Aukland, New Zealand, **every three weeks.**

Write for information and free literature concerning the Colony. Address

T. E. DONNE, *Superintendent Government Department of Tourist and Health Resorts*

WELLINGTON, NEW ZEALAND

will not interfere with cultivation, and this method will be much less expensive than it would be to cover the bed with straw for this purpose only. The heat also will be intense enough to destroy insects and fungous spores.

2. In preparing the bed for second crop of berries, it is best to remove the old mother plants and let the vacancies be filled in with new runner plants, as these are the ones that will give you the most and finest berries. After the ideal row has been formed, keep off all surplus runners as is done in the case of a new-set bed.

L. M. L., Pulaski, N. Y. Have three acres of strawberries and would ask you how hard ground should freeze before covering. There is now about two inches of snow on the piece which came on a soft bottom. Should I cover over this snow right away or wait a little to see if it goes off?

You would better mulch at once. The snow on soft ground will make no difference. We often have put mulching on more than one foot of snow. The material will settle as the snow melts. Of course, it is best to do the work where there is no snow if it can be done.

J. C. M., Livonia, N. Y. As I think my land is not any too rich, will it benefit next crop if I scatter hen manure broadcast over the patch or between rows only?

2. Do you think plants, mother plants set out last spring, with four to eight crowns and her four offspring (in double-hedge row) with two and three crowns, to be a good strong plant, able to produce those fine large berries I am working for? My plants don't look so very tall, six to eight inches (some varieties), but they are so stocky.

3. Is not a berry patch grown in single-hedge row, a good deal easier to hoe and work with horse? Of course, have the rows only thirty inches apart, and have more rows in the patch?

A light dressing of chicken manure, scattered thinly between your rows of strawberries before mulching is applied, will help greatly in forcing a large vegetative growth in your plants, which in turn will assist the plants in developing larger berries. Any kind of fine, decayed manure is good to apply in this manner.

2. Yes; mother plants that have built up from four to eight crowns and four runner plants, each of the latter having from two to three crowns, certainly show great vigor. The height of the plant does not indicate productiveness. The manure you purpose putting between the rows will bring the foliage up to match the large crop of berries.

3. Plants that are grown in single-hedge row are much more easily kept free from weeds because the cultivator may be run up close to the plants, leaving only a very narrow space for hoeing, and if the runners are kept off before they get the start of the grower, it will be very easy to handle the single-hedge row in all respects.

D. B., Irvington, N. J. Have been troubled with curl-leaf on our strawberry plants; all varieties affected, some so badly as practically to ruin the crop, but not so bad this year as last. We tried last year the remedies suggested in the September number of The Strawberry, together with others, all without any benefit. The trouble is general in this section.

2. We have a piece of ground upon which for years we have tried to raise strawberries, but without success. Adjoining, and separated only by an open drain, we raise large crops of berries. Just below this latter piece we set berries for the first time last spring. At present not one-quarter of a crop is promised. Upon testing the soil with blue litmus paper we find on all our best berry ground an acid condition of the soil. The plots complained of show a neutral, if not a slightly alkaline, soil. Is this the trouble? If so, what is the remedy?

It is quite likely that you deferred spraying your strawberry plants until after they had become quite badly affected with mildew or leaf-curl. Either Bordeaux mixture or liver of sulphur will prevent this trouble if the spraying is begun at the very first sight of the trouble. In preparing the liver of sulphur use two pounds to fifty gallons of water. This is somewhat stronger than recommended by most bulletins, but we have found this strength effective and not at all injurious to the plants. Remember that these are

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES

The IDEAL IN REALITY

PATENTED NOV. 17, 1903

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all** who have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crushed. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the **flat** condition.

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

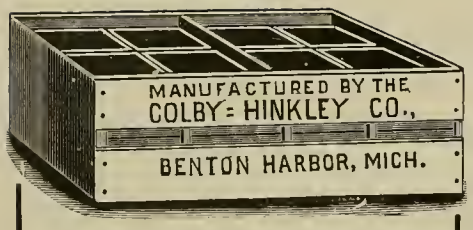
Sales during 1906 in **47 States and some foreign countries,** and **1400 new names** were added to our already large list of customers.

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents



BERRY BOXES
BERRY CRATES

In flat or made up. All kinds of

BASKETS

BEST GOODS **RIGHT PRICES**

Send postal card for catalogue

Colby-Hinkley Company
BENTON HARBOR, MICHIGAN

preventives, but will not effect a cure when once the mildew or curl actually are present in serious degree.

2. This piece of ground is sour, and strawberries will not thrive upon such soil, as they prefer a neutral soil; that is, neither too acid nor too sweet. Fifty bushels of wood ashes, spread evenly over the surface after the ground has been broken up, and thoroughly worked into the soil, will overcome this condition, as wood ashes contain about 30 per cent lime, which neutralizes the acid in the soil. Now plant to potatoes, as this crop will thrive better on soil that is slightly acid than any other crop we are familiar with. We would caution you, however, against planting potatoes on soil where ashes are used without first treating the seed with corrosive sublimate—two ounces to sixteen gallons of water is the quantity to use. First make a paste of the sublimate by merely moistening it, and then dissolve this in the sixteen gallons of water. The reason this treatment should be given is that the lime in the ashes will have a tendency to develop scab in potatoes. After the potatoes are dug another application of wood ashes—the same quantity as before—may be made. A good dressing of manure should be worked into the soil before the potatoes are planted. After applications of wood ashes have been made and a crop of potatoes grown, the acid in the soil will have been neutralized and the soil will be in good condition for strawberry plants.

Let Me Quote You a Price on a

CHATHAM

Before You Buy an Incubator

It will take one penny for a postal, and a minute of your time, to write for Special Prices on 1907 Chatham Incubators and Brooders. No matter what kind of a machine you have in mind—no matter where you intended buying, or when—**TODAY** you should send me a postal and get my catalog and prices.

My book will tell you how good Incubators are made—will tell you what you ought to know about poultry business—will tell you about brooders—will post you on the best way to make money out of poultry—and my prices on Chatham Incubators and Brooders will show you how to start in the poultry business for a small amount of money.

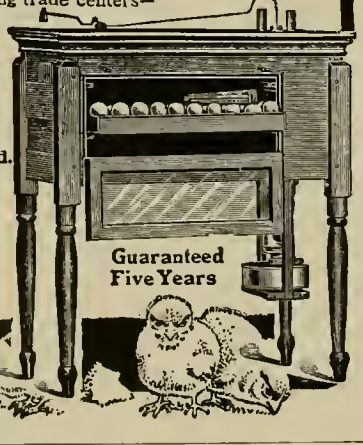
Chatham Incubators Sold on 84 Days FREE Trial

freight prepaid—guaranteed 5 years. That's the story of the celebrated Chatham Incubator. We sell them on trial, pay the freight, and guarantee them for 5 years. With proper care, they last a lifetime. I am going after the Incubator business of the country this season, and I intend to get it—on great, big value in the machine and a very low price. Chatham Incubators are the best possible to make. They are tested, and known to produce the largest percentage of strong, healthy chickens. We have two immense factories—one in Canada and one in the United States—and run our own experimental station where a battery of Chatham machines are in operation every day in the year, under the care of expert poultry men.

If you are most ready to buy a machine now, put it off for a day or two until you can get my prices and catalog—then decide on what to buy.

We have warehouses in all the leading trade centers—where Chatham Incubators and Brooders are kept in stock—insuring prompt delivery. Depend on this:—With the immense amount of money—$500,000—that we have invested in the Incubator manufacturing business, we are sure to give our customers every improvement worth having in the Chatham Incubator. We can afford it, because that is what brings us the largest business in the world. That is all I can say in an advertisement. I invite you to write for my prices and book. Address me personally.

MANSON CAMPBELL
President Maoson Campbell Co., Ltd.
282 Wessoo Avenue, DETROIT, MICH.
If you live west of the Mississippi River, address me Box 282 Topeka, Kan.



R. H. H., Brooklyn, N. Y. I bought some plants last spring and have cultivated them according to your methods, and with great success. I have four rows in single-hedge rows, and eight in matted rows, and they look well; not a weed to be seen. But about a month ago I noticed a little white fly, about one-sixteenth of an inch long, among the plants, and they have since multiplied greatly. They did not at that time seem to be doing any damage, but I tried to get rid of them by spraying with kerosene emulsion. It seemed to kill them at the time, but they returned, so I re-sprayed them, but the vines are quite full again, and I notice some of the leaves are turning purple and drying up, and the under part of all such leaves seems to be covered with eggs. I have been a little afraid of spraying so late in the season, so have been cutting off some leaves that were covered with eggs and burning them. I will enclose a couple of bad leaves so that you can judge from them what the trouble is. The Strawberry and its Correspondence School cover the ground so thoroughly that I haven't had to ask any questions until now. The Strawberry certainly is an interesting and instructive publication. I have twenty-nine hives of bees, right next to my strawberry patch, which will no doubt insure good fertilization.

The insect which is working upon your plants is the white fly, and your treatment with coal-oil emulsion is about the only thing that can be done. The white fly is a sucking insect, and can only be killed by spraying with either kerosene emulsion or whale-oil soap. We regret that you did not spray the third time. This would have caught the flies the former sprayings did not come in contact with. It is also quite likely that a second brood has hatched since your first spraying. Of course, they will do no injury until spring, at which time the plants should again be sprayed at the first appearance of the fly. Burning over after fruit is picked and clean cultural methods are the best preventives.

M. T. A., Chesterfield, Mass. I wish to start a small strawberry plantation next spring, but my land is very wet. Water does not stand on the surface, but it is a long time drying

To Be Given Away Free

Read Every Word of This Advertisement Carefully

FOR advertising purposes we have arranged to give away, absolutely free of cost to the users of Mary Elizabeth's Baking Powder, one thousand or more sets of six Louisiana Purchase Exposition Souvenir Spoons (full tea size) on certain very easy conditions.

These are the same make of spoons sold on the World's Fair Grounds in St. Louis at $1.00 to $1.25 each, and we propose to make every lady reader of The Strawberry a present of a full set of six for which thousands of visitors paid $7.50 on the World's Fair Grounds.

Send No Money---Just Write a Letter Like This:

Mary Elizabeth's Baking Powder Co., Shelbyville, Ind.
Please send me the box containing eight cans Mary Elizabeth's Baking Powder and one set, six (all different), Louisiana Purchase Exposition Souvenir Spoons as advertised in The Strawberry, for which I agree to pay you $2.00 on receipt of the goods if they are found (after examination) to be as advertised.

Name_____ State_____

Town_____ P. O. Box or Street No._____

The Illustration but faintly Portrays the Beauty of the Spoons

The handle of each spoon is embellished with the head of President Jefferson, a French and an American flag and other cabalistic designs commemorative of the Louisiana Purchase.

In the bowl of each spoon is embossed a reproduction of one of the principal exposition buildings. Each spoon shows a different building, viz: Electricity, Mines and Metallurgy, Liberal Arts, Machinery, Horticultural and the United States Government Buildings.

The workmanship on these spoons and materials used are vouched for by one of the largest manufacturing silversmiths in the United States.

The Historic Value of the Spoons

The great Louisiana Purchase Exposition, the most stupendous collection of the works of modern man and the relics of his savage ancestors, is a thing of the past—the glories of the Exposition but a memory. Already your friends and your children look with eager interest on every memento of what in all probability will be the last of the Great World's Fairs. Recognizing this, we have purchased from one of the largest manufacturing silversmiths in the world a large supply of the official souvenir spoons (full tea size), which we propose to distribute (in sets of six) **absolutely free** to the users of Mary Elizabeth's Baking Powder.

These Spoons are not for Sale Separately at any Price

They are only obtainable in connection with Mary Elizabeth's Baking Powder.

Mary Elizabeth's Baking Powder cannot be purchased at stores; is sold only direct from factory to user, and conforms strictly to all requirements of the new Pure Food Laws recently enacted by Congress.

Mary Elizabeth's Baking Powder is not made by a trust, but you can put your trust in this brand. If you want a dependable powder this brand will never disappoint you.

Mary Elizabeth's Baking Powder Co., Shelbyville, Ind.

out. I have plowed a small piece and manured it well, and have put a ditch through the lower end. The soil is black for three or four inches down. The slope is westerly. The altitude is about 1,400 feet.

2. What varieties would I better plant? The late berries would be best for my available market.

3. Would planting on slightly elevated ridges help to prevent heaving by frost?

It never is a good plan to set strawberries on low, wet ground, but from the description you give of your land, we think it will be safe for you to use it. The ditch you have made through the lower end will be of great benefit in carrying away the surplus water. If you will make the rows run toward the ditch and make a slight ridge before setting the plants, then the cultivator will make small furrows, which will carry the surface water to the drain ditch.

2. Such late varieties as Pride of Michigan, Gandy, Parker Earle and Brandywine will do well on such land as yours. The Glen Mary will be about the best medium-season variety to grow on that soil.

3. The only sure preventive against the ills of freezing and thawing is to mulch, and in your latitude to mulch well.

Comments and Suggestions From a Strawberry Reader

By J. S. Dickinson

I WAS struck with your answer to Mrs. R. S. (October Strawberry) as to cost of putting out one acre of strawberries. Your Western prices are somewhat lower than Eastern; for instance, two-horse loads of manure bring $2 per load; for plowing and harrowing, $5 per day; for labor of man, $1.75 for day of nine hours. This is too much for farmers here to pay, but these prices rule.

I put out a small bed of strawberries last spring and have been interested in watching these plants grow. My soil is rather heavy, and bakes quite hard, and it is difficult to keep it loose. I have four rows of strawberry plants each 225 feet long. Two of the rows have the plants one foot apart, and all runners are cut as fast as they appear; one row matted three and one-half feet wide, and the fourth row is part matted and part double row of plants set sixteen inches between rows and eighteen inches between plants, and runners all cut. I shall set most of my plants in this manner next spring, as I think I can get more plants on a given space than in the single row. I use a wheel hoe between rows, and a potato hook between plants.

I wonder if all your readers know how easy it is to hoe with a potato hook? But don't let the weeds start—and they won't, if the hook is kept busy. For a hoe I cut off the corners of an ordinary tobacco hoe, and it is all right to work among the

plants. The edges where cut off should also be sharpened.

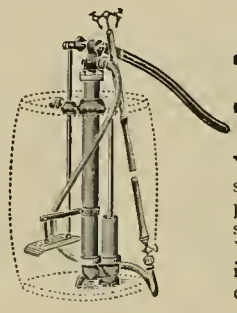
Old Saybrook, Connecticut.

We are very glad to have information concerning wages paid for farm labor in your locality, also the price of barnyard manure, which of course, will increase the cost per acre, where labor is employed, above the figures to which you refer. But we think the prices in your locality for the berries are somewhat higher, which will fully even up the difference in cost. The cost for manure and labor is lower in some sections of the country than the prices we quoted. In making up a table of this kind we simply take the figures from our own books.

A potato hook may be all right when used by the grower himself, but to permit all sorts of hired help to use the hook would be decidedly risky, as we fear they would get the prongs under the plants and pull them out before they had become well rooted. We sometimes, in going over the plants the first time, use a common garden rake, but always have several foremen behind the men watching carefully to see that no plant is injured. Your plan of cutting the top corners off the hoe blade is an excellent one.

We wish that others of our readers would tell of their ways of doing things. It is not only interesting, but of large value. Where this is done we shall be glad to discuss the points suggested, adding a word of comment or criticism, as the particular case calls for, from our viewpoint.

As Ye Spray, So Shall Your Harvest Be!



And if you use the

Eclipse Sprayer

YOU WILL SAVE DOLLARS, because it throws a perfect spray and covers every particle of the tree, bush or vine. It puts the spraying material where it will do the most good, insuring greatest economy, and never wears out.
We invented the Eclipse Spray Pump after experimenting for years in our own orchards, with the common sprayers, and thousands of users testify that it is the best spray pump made.

OUR ATOMIZER is made for house plants, greenhouses, and shrubbery. It is one of the best sprayers for cattle in the fly season ever made, and for keeping the chicken coop free from lice and mites it has no equal.

Like all the rest of our spray machinery, it stands at the head in its particular lines of work

Our Knapsack Sprayer

Is just the thing for the family fruit garden, because it will keep your strawberries, grapes, fruit trees, and all bush fruits free from insects and fungi. The Knapsack is made from the same material as our Eclipse pump, and will last a life time

All three of these machines and many other aids to successful horticulture are fully illustrated in our 40-page catalogue. It is brimful of valuable information for the gardener and fruitman. It is free to you. SEND FOR IT TO-DAY

MORRILL & MORLEY,
119 Elm Street **Benton Harbor, Mich.**

IMPLEMENTS 2 IN 1 FACTORY TO FARM

MR. FRUIT GROWER, HOW MUCH IS YOUR TIME WORTH?
You can save one-half of it when preparing the ground and cultivating by using our
COMBINATION SPRING AND SPIKE-TOOTH HARROW
Special Introductory Price and freight paid to first buyer in your locality. Send for free illustrated booklet and surprising special offer.
NAYLOR MFG. CO., Not Inc., 4 Spring Avenue, LA GRANGE, ILLINOIS

IMPLEMENTS 2 IN 1 FACTORY TO FARM

AMONG the important houses which deal directly with farmers and fruitmen and which handles a line of goods especially interesting to them, is the Kalamazoo Cash Supply and Manufacturing Co. They are indeed farm specialists, carrying, perhaps, a larger line of special farm tools and appliances than any other house. They do not deal at all in general supplies, such as clothing, dry goods, boots and shoes, groceries, etc., but for things that pertain to the farmer, the stockman, the poultryman, the gardener and fruit grower, and for utensils in the home, they are headquarters. More than that, they ship direct from factory to consumer, selling at the lowest possible prices when quality is considered. Their catalogue will interest you and save you money. Send for a copy at once, addressing the Cash Supply and Manufacturing Co., K692 Lawrence Square, Kalamazoo, Mich.

IN a note to the editor an Illinois subscriber says: "I have studied the back numbers of The Strawberry with great interest and benefit. Now if you will put a subject index in the December issue you will have in your 1906 volume 'a rule and guide of faith for all mankind,' but more especially for the strawberry grower." Our correspondent's suggestion is prized; it accords with the plans of the publishers from the inception of the magazine. A good index is one of the essentials to completeness in a periodical like The Strawberry, and those who have been wise enough to preserve all the numbers composing the present volume will have, with this concluding number, the most comprehensive book on strawberry production ever published, and so indexed that every fact and suggestion readily may be found.

POTATOES are the vegetable universal; more people eat them as a regular part of their daily diet than eat white-flour bread. More than three million acres of land are given up to their production annually in the United States alone. Therefore, the importance of this crop and the importance of producing it in the most economical way, are clearly apparent. The establishment in this country (and that means in all the world) that has done the most to help the potato growers score success, both in quantity of yield and economy of production, is the Aspinwall Manufacturing Co., of Jackson, Mich. Potato cutters, potato planters, potato sprayers, potato diggers and potato sorters—all of them mechanical successes—are the products of the inventive genius of Mr. Aspinwall, and potato growers all the country over recognize him as the leader in this line of work. We could not begin to tell you here about these mechanical wonders, but if you will write the company and mention The Strawberry, you will be told just how to make a success of potato growing. Don't put it off, but ask for one of their beautifully illustrated catalogues at once.

THE Advance foot-power wire-stapling machine is a machine that no grower of small fruits can well do without. It has been designed and built especially to meet the demands of fruit growers who make up their own packages during the winter months. By its aid four to six thousand quart boxes can be made in a day in place of a few hundred where a hammer and tacks are used. The stapling mechanism is so simple that any intelligent boy or girl can operate and keep it in perfect running order. The other day a Strawberry representative was conducted through the factory of the Saranac Machine Co., St. Joseph, Mich., who manufacture this machine, and was shown it in various stages of completion. He was highly impressed with the thoroughness with which it is made. And we recommend it to our readers as a necessity on any fruit farm, no matter how small.

OUR readers will be very much interested in the Farm Journal special offer appearing elsewhere in this number. It is well known that Farm Journal is one of the brightest and biggest little farm papers published. It is a pa-

To Our Photographic Contestants:

IT was impossible to pass judgment upon all the photographs submitted to The Strawberry in time for announcement in this issue, but the judges will have the work done in ample time for us to send the winners their checks for Christmas, and announcement will be made in the New Year's issue.

---

per for busy farmers, "full of sunshine and gumption." It is so reasonable in price that every one can afford to take it. At the same time it is so valuable that no one interested in farming can afford to be without it. The Biggle Books offered are well worth a place in every library, and are especially valuable to the farmer. A new Biggle Book for the orchard is offered among others and it promises to be fully up to the standard of the eight Biggle Books already published. The Roosevelt Family Calendar offered will certainly be desired by every reader of this paper, as it is suitable for parlor, sitting room and office. Promptness, however, is essential in securing the Roosevelt Family Calendar premium as this offer is only good until January 1, 1907. Write today, and say you saw it in The Strawberry.

AMONG the well-known manufacturers of berry boxes and all kinds of fruit packages, is the Colby, Hinckley Co., of Benton Harbor, Mich., whose long years of experience has been epitomized in a neat and complete catalogue which they are sending free to our readers. In this catalogue you will find every kind of fruit package, fully described and illustrated. The advertisement of this company appears in this issue of The Strawberry. Read it, send for a catalogue, and we are sure you will be more than repaid.

YOU know how often we urge the disking of the soil in order to get it into proper condition. There is nothing just like the disc to conquer certain soil conditions. This month the American Harrow Co., 4543 Hastings street, Detroit, Mich., make an announcement concerning their famous Detroit Tongueless harrow that will interest every reader of The Strawberry. They know so well the extraordinary advantages of their machine that the company is now offering to everybody a thirty-days' trial free, and if it isn't all they claim for it you may send it back. Knowing this company and their harrow we can readily understand how they can afford to make this extraordinary offer. No one ever will send the harrow back after once using it. It's just the thing for Strawberry folk. Write to the above address for full information. A postal card will do.

WE take pleasure in introducing to Strawberry readers the firm of Geo B. Thayer & Co., of Benton Harbor, Mich., whose advertisement of their fruit packages appears in this issue. They ask only that you send for their catalogue, and we are confident that you will find something of interest in it for you, if you do. We know that they make good goods and carry out every promise made.

THE largest manufacturers of sash, doors and millwork in the world are Gordon VanTime & Co., of Davenport, Ia. Possessing their own timber lands, their own saw mills and their own factories, they are able to sell their manufactured product direct to the consumer at a saving of 50 per cent under regular prices, and they will fill your order with goods of the highest quality at prices representing as great a saving as we have named. If you would like to test this matter, just send for the splendidly gotten up catalogue issued by this company. It is not merely a catalogue, but among other of its features is a set of pictures and complete architect's plans for five houses of moderate cost, which in itself saves the builder the cost of having plans drawn. Then there are pages devoted to every branch of house building and finishing, with suggestions of highest value to the man who is building a new house, rebuilding an old one or adding to his present quarters. It is free. Address Gordon VanTine & Co., Station A85, Davenport, Iowa.

Economy Kitchen Cabinet

DIRECT FROM FACTORY TO YOUR HOME

GREATEST LABOR-SAVER EVER DEVISED FOR WOMAN
NOTHING LIKE IT TO BE HAD FOR THE SAME MONEY

One Woman Writes: "I would not know what to do without it it saves so many steps."

See the Conveniences and the amount of room it contains:

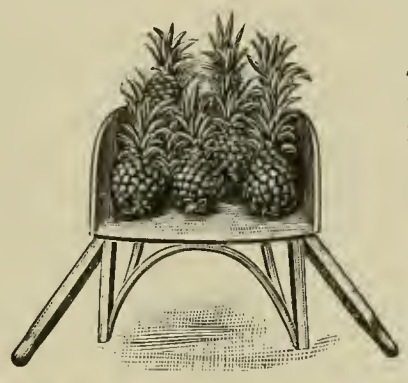
DESCRIPTION—Top Cabinet is 27 in. high, 8 1-2 in. deep, and 42 in. wide; it has a shelf above 8x40 in., with 2 large and 2 small drawers, and a place on either side for flavoring extracts, towels, etc Top of base is 26x45 in., made of whitewood; underneath this is a kneading, meat and bread-cutting boards; has 2 drawers; 2 large flour bins, holding about 50 lbs. each. This cabinet is made entirely of white maple, finished natural and built in the most substantial manner, making it one of the most convenient cabinets on the market

References: First State Savings Bank
Kellogg Publishing Co,, Three Rivers, Mich.

ECONOMY CABINET CO., THREE RIVERS, MICH.

COMFORT CONVENIENCE CONTENTMENT $9.45

Shipped Promptly on Receipt of Price



ISLE OF PINES, W. I.

The Garden of Eden and Greatest Winter Resort on the Western Hemisphere.

WANTED—A Reliable man to join me in the Poultry and Bee business. Also early Vegetables and Strawberry growing in the Isle of Pines, W. I. I own several tracts of land there suitable for above business and am well acquainted on the Island. Join our excursion from New York, January 19, 1907, on the Ward Line Steamship, "Morro Castle" to Havana, and look over the proposition and country. For more particulars, illustrated booklet, address

F. M. Vaa Etten, 617 Main St., Buffalo, N. Y.

PLEASE STATE WHICH PUBLICATION YOU SAW THIS ADVERTISEMENT.

INDEX TO THE STRAWBERRY

VOLUME I—JANUARY TO AND INCLUDING DECEMBER, 1906

Advertising your strawberries...104
All in good management.....178
Among the Mississippi strawberry growers 5
An Oklahoma poet's greeting.. 84
Another amateur's experience... 86
Ants, preventives 151
Answers to many inquiries.....162
Aphis (root louse)—Description, 97; Method of working, 97; Remedy for, 97; Prof. Sanderson on, 196.
Ashes—For making firm fruit, 167; How to apply, 67, 94, 260; Mixing with manure, 94, 96; No value in coal, 183; On clay soil, 106; On sandy soil or loam, 106.
Associations, Castleberry fruit Growers', 26; National strawberry, 26.
As to planting various varieties.. 34
Auctioning off strawberries for charity 132
August work for strawberry growers 159
Autumn work in the strawberry field 215
Autobiography of a strawberry grower, Chap. I, 221; Chap. II, 241
Bailey, L. H.: On selection....148
Bees and strawberries, 59; Bee statistics, 87; Believes in the pedigree idea, 42.
Beetle—Description, 97; Method of work, 97; Remedy for, 97, 154; How to prevent, 97.
Berry growing among the firs, 90
Bisexual—Definition of, 70; Plants require no mate, 186; How to identify, 205.
Bloom—Removing from young plants, 105, 122; Removing from second-year plants, 167; Removing affects runner development, 183.
Bordeaux Mixture—Formula for, 98, 160, 171, 187; Preventive of mildew, 259.
Boxes—Making with stapler (Illus.), 28; and crates required, 45; Waxlined paper, 171.
Breeding—New varieties of strawberries, 81; Double-crop plants, 200; Plants, how the work is done, 256.
Buckwheat as an advance crop.. 94
Burning over the old bed (Illus.). 128; Dangerous in autumn, 43; Value of, 98, 137; When dry, 228, 258.
Carrier, An inexpensive (Illus.), 28; A substantial (Illus.), 28.
Cheat, How to get rid of.....135
Chickens and strawberries, success with 248, 249, 250
Chicken Droppings—How to apply, 20; Mixed with stable manure, 91, 136; Mixed with land plaster, 95; Value of, 203; As top dressing, 259
Christmas present offer.....235
Climb to the top.....246
Clipping, Comment, and Criticism 245
Clover Sod—Valuable for plants, 21; Furnishes humus and nitrogen, 21, 46.

Comments and suggestions from a strawberry reader 261
Commercial fertilizer and the strawberry 111, 235
Compost, making leaf mold..... 68
Concerning wood ashes 106
Conserving moisture, 145; by cultivating and hoeing 228
Cornfodder as mulch, 7, 255; when and how to sow corn; Amount of seed required; on clover sod; when to cut; Yield per acre, 255
Corrosive sublimate 260
Cost of an acre of strawberries, 190
Reducing the 213
Cow Peas—When to sow, 155, 205, 223; For humus, 186, 205, 223.
Crab Grass, how to get rid of..170
Crate Making (Illus.) 27
Crate Form (Illus.) 27
Crown Miner—Description, method of work, and preventives.. 97
Cultivation—vs. fertilization, 104; In the fall, 177; During fruiting time, 44; Increase when plants are inactive, 75; Depends on climate, 138; When and how to practice, 139; Checks capillary action, 223; By hand, 228.
Cultivating the fruiting bed....102
Culture for color and keeping qualities 21
Cut Worm, nature and preventive,184

December tasks for strawberry folk 251
Don'ts.....76, 98, 144
Double-Cropping 70
Double-Hedge Row—Advantages of, 50, 151; Distance apart to set plants in, 68; How to make, 120
Draining—Level ground, 183; Strawberry bed in winter, 257.

Electrical experiments with plants, 4
Elements of Success.....146
Ever-bearing strawberry, The, 18; Notes on, 39.
Extended strawberry season, An, 17

Fall Fruiting, effect on succeeding season's crop 228
Fall preparation of soil, 21, 177
By plowing 203
Family strawberry patch, 11, 30, 554, 77, 209; Hints for making and possible results, 11.
Farmers' Congress, The 190
February work, Suggestions for, 27
Fendall strawberry, The (Illus.), 164
Fertilizer—Analysis or commercial f. desired, 44; Summer application of, 92; For sandy loam, 93; When to apply, 122, 154; Ohio prices for, 137; How to apply, 139; Ground bone as, 153; The best f., 175; Hoof-parings as, 186; Muriate and sulphate of potash for, 204; Rotted flax straw for, 204; Pigeon-droppings as, 204; Sand vetch as, 227.
Filling in vacancies, 92, 153, 154, 177, 184, 203, 226.
Forcing strawberry plants in pots, 169, 218; In green-house, 187.
Foreword 1
Free-seed distribution 142
Frost—Smoke as a preventive, 91; Effect on blossoms, 138; Causes poorly formed plants, 168; May destroy entire cone, 168; Effect on new-set plants, 257.
Frozen crowns, protection against 195
Fruiting Bed — Weeding the, 74; Cultivating the, 102, 138.

Getting a home of one's own, 174
Good work for women..... 16
Growing and selling strawberries, 174
Growing plants and fruit together, 52
Growing strawberries in North for Southern markets 25

Haste that makes waste..... 88
Heeling-in plants (Illus.) 52
Helpful hints for strawberry folk, 108
Hill system, growing strawberries by 119
Hoed crops as preparation for strawberries 21
Hoeing—The proper way (Illus.) 75; Under foliage 185
Honeymoon strawberry enterprise, 85
Hood River region of Oregon, 132
Horticultural societies, Work of, 60A
How to prune and set plants (Illus.), 51; To get your own prices for strawberries, 74; To handle a kicker, 107; I encouraged home strawberry culture, 150; Colorado celebrates Strawberry Day, 161; I renew the old bed, 176; One amateur finds joy in patch (Illus.), 179; A novice compels success, 210; White strawberries were introduced, 211; Laddie cured father's rheumatism, 219; To get rid of the white grub, 229; To clean out a badly matted field, 224.
Humus, peas as makers of.... 92

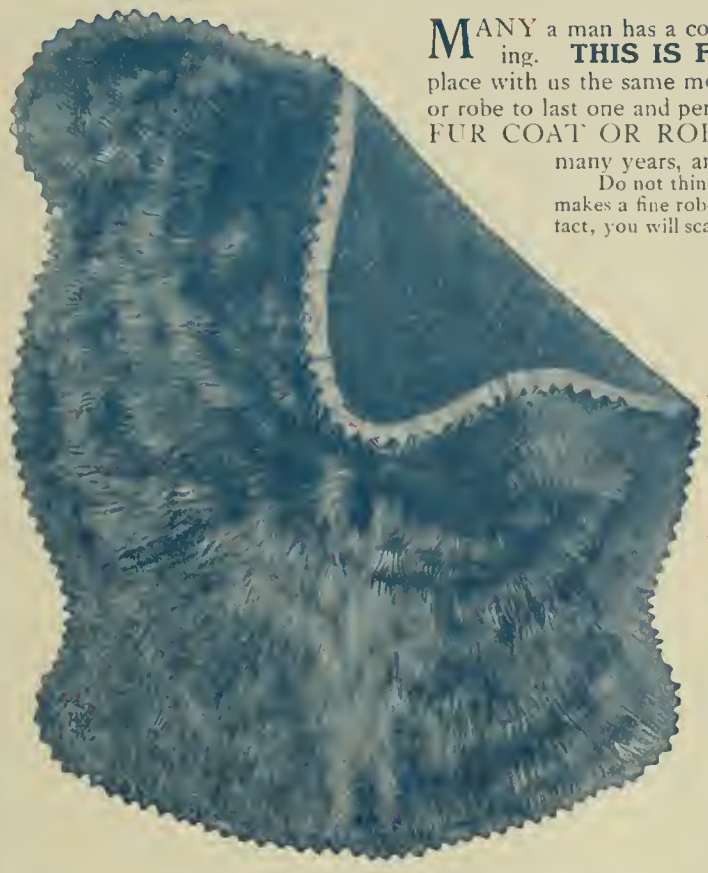
Important word from Secretary Hays 60A
Insects, Insurance against 177
Intensive vs. extensive strawberry culture 142
Irrigating the strawberry, 139, 152, 223, 255.
July work in the strawberry field, 145
Kanit as a nitrogen saver..... 62
Kerosene emulsion, remedy for white fly 260
Krueger, C. H.: How I renew the old bed 176
Late berries for the north, 67, 190, 197.
Layering runners.....145, 159
Leaf curl. See Mildew.
Leaf Rollers—Origin, nature and preventive, 20; Second brood, 159
Learning the better way.....114
Lime—Fertilizing value of, 96; Observe care in using, 120; Value of carbonate of, 155.
Liver of sulphur, preventive and cure for mildew, 98, 152, 259
Making fertilizer without cost, 28
Manure Spreader, The economy available, 10; Horse and cow mixed, 19; Chicken droppings as, 20; High value of farm, 33; Top dressing with, 137, 139, 195; Barnyard, 46; Value of sheep, 139; Spreading in summer in Texas, 167; Liquid as stimulant for plants, 170; Coarse on heavy clay soils, 204.
Manure Spreader, The — Economy and value of, 10, 20, 55; Cost of, 11
Managing the berry pickers.... 99
Marking device (Illus.)..... 28
Mating varieties.....19, 21, 92
Melcher, August: Some reminiscenses of an Old Timer..... 63
Mice in strawberry fields.....193
Mildew (Leaf Curl), Nature of and preventives, 46, 71, 154, 171, 185, 259.
Moles, To get rid of.....46, 193
More differences than one in the quality of fruit 244
Moving pictures of plant growth, 175
Mrs. Hooper of the strawberry patch 174
Mowing over the patch, implement to use 137
Mulching, Materials for—Asparagus, 185; Buckwheat straw, 168; Clover chaff, 69; Coarse manure, 7, 19, 216; Hops, 120; Leaves, 170, 223; Millet, 137; Marsh hay, 7, 216; Oat straw, 7, 19, 216; Pine Needles, 7; Rye straw, 216; Sawdust, 46, 205; Shredded cornfodder, 216, 250; Snow, 170; Sorghum pomace, 7, 19, 183, 217; Sown-corn, 119, 216, 255; Swamp grass, 255; Tobacco stems, 69, 152; Wheat straw, 19, 215; Uses of, 2, 68, 168, 261; Applying, 119, 215; Time for, 7, 228; Economy of, 216; Importance of, 8; Where snow-fall is heavy, 44; In the North, in the Middle States, In the South, In arid lands, 7; On the snow, 259; Growing oats for, 46; Growing corn for, 255; How to remove, 139; When to remove, 170; Quantity required, 185.
My first attempt at growing strawberries 32

Nine hundred dollars from an acre of strawberries 214
Nitrate of Soda—Where to obtain, 44, 96; When and how much to apply, 94, 228; Not required on virgin soil, 45; Excess of makes soft fruit, 94, and too great vegetative growth, 96.
Nitrogen, excess of causes over-development of foliage, 171, 226, and makes fruit soft, 186.
Note from Southland 89
Noteworthy strawberry field.....211
North Carolina's great strawberry fields 131

Oats as preventive of soil washing, 205
Oat-straw mulch.....7, 216
October work with strawberries, 195
One amateur's experience 11
One beginner's experience 56
One farmer and his strawberries, 247
Onions as an advance crop....203
Organization—Necessity and value of, 49, 143; For better methods and prices, 141.
Overflow Question Box, 64, 182, 198

Packing, Value of care in..... 76
Paris Green, Formula for spray, 98, 106.
Phosphate—How to apply, 152; Results from use, 153; Value of rock, 155.
Phosphorus—As a soil builder, 62; In raw bone-meal, 155.
Pickers—How to handle, 158; Number required, 139.
Pickers' Chariot, The (Illus.), 180
Picking Strawberries — Only when dry, 75, 138, 228; One day's work for a man, 228.
Pistillates—More prolific than bisexuals, 21; Will bear only when mated, 22, 63, 103; How to mate, 69; Definition of, 70; How to identify, 205.
Plants—Preparation of soil for, 22, 186; When to manure, 43; Number required, 20, 121; Preparing for bud development, 159; For a dry climate, 164; Thinning out, 70; Use only strong, 68; Never use old, 123, 139; Number of crops from one setting, 137, 139, 151, 170, 228; Old p. cause pollen exhaustion and encourage diseases and insects, 152; Bloom in proper season, 152; All runners of equal value, 183; Infected leaves of, 185; Nature unchanged by mixing, 205; Effect of long-distance shipping, 257; Weight per thousand, 45.
Plant breeding, for maintenance and improvement 101
Pointers for the procrastinator, 180
berries 41
Potatoes as an advance crop, 228; As remedy for acid in soil, 260
Potassium—Adds to color and keeping quality, 21; Do not use too liberally, 120; Encourages healthy foliage, 154.
Poultry with strawberries, 114, 248
Practical experience in strawberry culture 126
Practical strawberry culture.... 62
Preparing bed for second crop, 128, 170; Treatment of old plants, 259
Preventives of insect pests and fungous diseases 97, 98
Propagating Bed, The, 129; Keep distinct from fruiting bed, 94; How to make, 122, 185.
Propagating your own plants... 91
Proper mating of varieties to secure pollination of bisexuals (with arrangement scheme), 60D
Proper pollination points 39
Pruning (Illus.), 51; Value of, 185
Quality in fruit, cash value of.. 4
Question for Southerners, A....112
Reasoner, J. R. (Portrait): Origin of the Senator Dunlap strawberry 3
Reasons for my faith..... 50
Received his dollar's worth many times over 243
Recollections of a veteran.....210
Recruiting the farms 35
Red Spider, Nature, habit and remedy for 151
Remedies for insect pests and fungous diseases, Bordeaux mixture, Liver of sulphur, Paris green, Burning over fields, 98.
Remittance in rhyme 65
Removing surplus runners, how to do the work.....159
Rotation of crops, importance and value of.....129, 154, 185, 194
Rosebugs, Remedy for 169
Rows, measuring off by steps (Illus.), 2; Direction to run, 138; Distance apart for hand cultivation, 93, 96; Distances apart in different modes of setting, 187; Why better than the hill system, 153.
Runners—First, when to remove, 92, 154; Second year, value of, 136, 152; Handling surplus, 47; When to remove, 138; Restricting, 20, 21, 69, 95, 177; Value of restricting, 138; Layering, 136, 145, 159; Encouraging growth of, 184; Treatment of laterals, 43.
Rust—Nature of, 95, 155, 169, 204, 207; Preventives, 98, 155, 169, 204, 207; Damage done by, 224.
Rye—As cover crop, quantity, when and how to sow, 21, 155, 205; Takes up manure leachings, 187, 207
Salt, Injurious to soil.....123
Sandy loam for strawberries.... 21
Saving that wasteth, The.....176
Saw-fly—Description of and treatment for, 43, 97, 223; Spray with Paris green, 43, 106, 223.
Second Crop—Probable yield of, 44; Preparing for, 70, 128; Some causes for failure in, 223.
Selecting a location 166
Selection and preparation of the fields 133
Senator Dunlap strawberry, origin and naming of 3
Setting Plants—How to (Illus.), 51; When to, 224.
Shipping strawberries by thousands of carloads 131
Shipping at night 138
Simpson, Mr., 12, 15, 16, 103, 144
Simpson's view of things.....144
Single-hedge Row—Advantages of, 205, 259; Distance to set apart in, 205.
Slime mold on strawberry plants, 158
Slope of land for varieties of differing seasons 75
Slug, description, methods of work and remedy 97
Sod—Danger of white grubs in, 19; Alfalfa, how to handle, 91.
Soil—Preparing for plants, 22; May be made too rich, 44; Acid condition of, 259; Alkali in, 259.
Some cultural suggestions 36
Some reminiscences of an Old Timer, 63; practical experiences, 116; lessons from experience, 142; things worth knowing, 148; of the the season's experiences, 116; for May in the strawberry field, 191.
Sown-corn for mulch 255
Sorghum pomace as mulch..7, 217
Sorting berries 22
Specializing in strawberries 73
Spraying—In August, 159; In fruiting time, 119; When plants are in bloom, 121; New-set plants, 154; Only after dew is gone, 185.
Springtime strawberry suggestions, 75
Spring the time to plant.....214
Spring setting in the South.... 29
Stakes, Head (Illus.)..... 28
Stands by pedigree in plants, 60D
Starting a farm without a dollar, 31
Starting a farm on little capital, 8
Statistics, some strawberry 26
Stalk-borer, nature and preventive, 184
Strawberry literature, dearth of, 1
Strawberry growers organize.... 26
Strawberries—In wintertime, 2; In Texas, 29; In North Dakota, 78; In Northern Michigan, 127; In Bohemia, 163; In Missouri, 163; In the North, 165; In spare time, 196; In New Mexico, 206; In an orchard, 129, 286, 226; On high and low land, 19; On hill sloping east, 152; For select trade, 110; And chickens, 30; Packing, 127; Number of successive crops of, 129; Railways recognize importance of, 132; Most reliable of crops, 144; Foundation-making season for, 159; Sub-irrigation for, 68; How to pick, 122; Injured by too much water, 168; September work with, 177; And the home beautiful, 125; And one woman's grit, 147; That made a merry Christmas, 237; Adaptability to any soil, 108, 127; Need the sun, 108; Remarkably free from insect attacks, 108; Hygienic value of, 110; Statistics, 157; Inspiration, the, 108.
Strawberry culture in Colorado, 16
Success and failure and some figures why 12
Success with strawberries, A woman's 41; To the man who does, 102; Despite discouragement, 165; Under difficulties, 213; and chickens, 248.
Suggestions for March 52
Summer setting of strawberries, 250
Sweet Corn as an advance crop, 256
Taking their winter sleep (Poem), 37
Tarnish Bug, preventive 98
Thinning out strawberry plants, 191 225; Essential to fruit quality, 206
Transplanting, Spring the better time 45, 122
Use of commercial fertilizer in strawberry culture 235
Vacancies, Filling in, 92, 153, 154, 177, 184, 203, 226.
Value of ventilated strawberry boxes 211
Value of sticking, The.....109
Varieties of Plants—Best for single-hedge row, 24; Best for double-hedge row; Best for narrow matted row, 34; For the hill system, 163.
Weeding the fruiting bed, 74, 183
Weeds—Easiest time to kill, 105; In wet weather, 106; Best way to kill, 123; How to prevent, 123; Ridding matted row of, 167.
Weevil, origin and nature of, 136; preventive, 98.
Whale-oil soap, remedy for white fly 260
What a woman can do.....189
What two years of experience has wrought 250
Wheat as a cover crop.....223
Wheat-straw mulch 7, 215
When old age comes on..... 88
Where hasty judgment hurts...210
Where opportunity is neglected, 242
Where the strawberry comes from, 37
White Grub—Habit, 97, 120, 183, 184, 207; Preventive, 20, 97, 120, 135, 183, 184, 207; On sod land, 19.
Who grew the prize strawberries, 201
Why Bunker was disappointed, 103
Why I got no strawberries, 103
Winning success with the strawberry 57
Woman's success with strawberries, A 41
Women and strawberry culture, 181, 225.
Working among strawberry plants, When to stop, 43, 67, 135, 184
Young man's opportunity, The, 6

Selling Hides to Butchers is Poor Economy



MANY a man has a cow hide or a horse hide which he sells for almost nothing. **THIS IS POOR ECONOMY.** Let him send the hide to us, place with us the same money he spends in purchasing an ordinary cloth overcoat or robe to last one and perhaps two seasons, and we will manufacture for him a FUR COAT OR ROBE which we guarantee will not wet through, will last many years, and for durability and warmth cannot be equalled.

Do not think it is necessary to send us black hides; an even-colored red makes a fine robe; a horse hide makes a light robe—any color looks well. In fact, you will scarcely recognize your red, brown, gray, spotted, white and brindle hides after they have been through our process and the hair thoroughly washed and scoured bright. Don't sell your hides to the butcher; you are practically giving away a coat, robe or handsome floor rug.

When You Furnish the Hide

WE can tan and manufactnre a robe like this from a cow hide or a horse hide and make **FREE** a pair of Mittens from the trimmings. The robe will be soft and pliable, as warm as a Buffalo robe and lighter in weight; lined with the best green plush lining and heavy green felt border.

PRICES: 40 lb. Hide and under, $7.00 40 lb. to 70 lb. Hide, $7.50
70 lb. Hide and over, $8.00

We Will Tan and Manufacture Your Hides and Skins into Anything Desired

Calf, Goat, Dog, Colt Skins, etc., are tanned by us and made into Floor Rugs with felt lining and fancy border at prices according to size of skins and linings desired. We make Mittens and Gloves from small skins at very reasonable prices and do all varieties of Mounting and Taxidermy work.

We Furnish the Skins, Manufacture to Measure,

and Sell by Catalog

Galloway Coats, Robes,

Mittens, Gloves

FUR-LINED COATS AND OTHER FURS

Our Guarantee:

WE GUARANTEE that the hides we tan and the garments we make, either from the hides you furnish us or from our own, will be soft and pliable, and will never get hard; will be moth-proof, water-proof and more nearly cold proof than any other goods upon the market.

OUR Customers are Farmers, Physicians, Automobilists and others of this class who desire fit, warmth, appearance and durability. Our fur coats and robes are not made from pieces, but cut to your measure out of whole hides.

To Our Readers and Patrons:—

We are intimately acquainted with the National Fur and Tanning Co., its management, the quality of its own goods and the character of the work it turns out for others. We can most highly recommend its products and the honesty of its management.

THE KELLOGG PUBLISHING CO.

WRITE FOR OUR FORTY-PAGE CATALOG

The National Fur & Tanning Company

Three Rivers, Michigan

When You Furnish the Hide

WE can tan and manufacture for you a coat like this from two small hides or from one large hide, lined with the best padded and quilted satin body lining; Lusterine or "Iron Cloth" sleeve lining, edges of coat bound with Mohair Braid, black Ebony Olives and Mohair Cord Olive Fastenings; leather shields at armholes and Patent Wind Protectors at wrist.

PRICES:

Ladies' or Gents' Long Coat	$11.00
Ladies' or Gents' Short Coats	9.50
Children's (Boy or Girl)	9 00

Grow Apples that PAY the Producer and Please the Consumer

KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON, BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inferior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

For 82 Years STARK TREES

have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."

DELICIOUS
TRADE MARK
STARK BROS
A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1¼ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

THE STRAWBERRY

"The Lord might have made a better Fruit than the Strawberry but He didn't"

PUBLISHED BY

THE KELLOGG PUBLISHING COMPANY

THREE RIVERS, MICHIGAN.

SCARFF'S SMALL FRUITS

3 Free

YOU who have fruit or vegetable gardens! Would you exchange them for lawn or meadow? No; there's too much pleasure, too much profit in them. Some of my customers make annually from $200 to $300 per acre with small fruits.

Now, whether you're an old hand at fruit growing or just a beginner, I can be an assistant to help you on to success by sending my new catalogue fully describing my new money-making varieties. Write me for special advice. It's free.

I am making some remarkable offers in this advertisement. I call them "Introduction Offers." They are made to popularize my goods in your vicinity.

The collections below grow in favor wherever ordered and are found in each case to be exactly as described in catalogue.

MY MODEL $5 FRUIT GARDEN

Better than ever for 1907. I will send by express for only $5.00 this model Fruit Garden comprising 150 **Strawberry** plants, 8 **Gooseberry** bushes, 24 **Currant** bushes, 150 **Raspberry** plants, 50 **Blackberry** plants, and 12 **Grape Vines.** The very best varieties of each. Fruit will begin to ripen in May and continue until October. Think of such an offer for only $5.00—worth fully double the amount.

Free with this collection—I will send 1 **Crimson Rambler rose**, 1 **Yellow Rambler Rose**, 1 **White Rambler.** All hardy. Finest climbing roses grown. When they bloom they're well worth $5.00. See catalogue for exact description of varieties. Copy free.

My Model $1 Vegetable Collection---Postpaid

Thirty-five large Packets of Prize-Winning Vegetable Seed. The most liberal offer ever made. Everything of the very best. Try it and have the best garden you ever had.

One packet each of **Asparagus, Beet, Carrot, Coffee Berry, Cauliflower, Celery, Watermelon, Onion, Parsnip, Sage, Spinach, Popcorn, Pumpkin**; 2 packets each of **Cabbage, Cucumber, Lettuce, Muskmelon, Radish, Squash, Turnip, Beans**; 3 packets each of **Sweet Corn and Tomato.**

Be sure to order early. This high-grade collection will more than please you. Catalogue gives name of each variety. Copy free.

My Model $1 Collection of Strawberries--Postpaid

I will send 100 choice **Strawberry** plants—25 each of the best four varieties for your section, postpaid, for only $1.00.

A beautiful ever-blooming **Baby Rambler Rose** (worth 25c.) free with each collection ordered before May 1.

3 SPLENDID BLACKBERRY PLANTS--FREE

Whether you order or not any of the above collections, I want you to know what I sell and my prices. These you'll find in my new, handsome catalogue for 1907. It is full of illustrations and detailed descriptions of my high-grade small fruits and nursery stock.

I have faith in my plants. So I offer to send you my catalog and three vigorous, well rooted blackberry plants absolutely free, postpaid. Thus I can prove to you that I excel in fine blackberries as well as in other small fruits. Many of my customers are realizing $300 per acre profit from my blackberries, strawberries and currants. 800 acres in nursery stock and farm, growing farm and garden seeds, poultry and small fruits, prove that I give what I claim—**honest goods at honest prices.** Sit down and make out your order now.

W. N. SCARFF

Practical Nurseryman

NEW CARLISLE, - - - - - OHIO

Buy Right.

WHEN YOU BUY an incubator be sure you get one you can depend on. Every incubator will hatch well sometimes—when all outside conditions are favorable, but

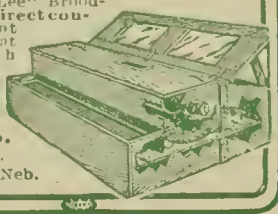
Mandy Lee

Incubators and Brooders

give results all the time. Heat, ventilation, and moisture—the three essentials of a successful hatch—are under separate and absolute control all the time.

There is no guesswork about the "Mandy Lee" Incubator. It don't make any difference what outside conditions are, you can always make "hatching" conditions in the egg chamber.

If you want to learn the hows and whys **Send for Catalog.** Also ask about "Mandy Lee" Brooders, the direct contact heat kind that furnish heat in a natural way.



Geo. H. Lee Co.
Dept. 51.
Omaha, Neb.

BLIZZARD BELT FOUR HARDY EVERGREENS FREE

We grow our "**Blizzard Belt**" **Evergreens** in ten million lots. To advertise them and prove that they are healthy, well rooted and vigorous, we offer to send **four fine sample trees** 3 years old, **free** to a limited number of property owners. Mailing expense 5 cents, which send or not as you please. A postal will bring them. Last year we distributed 500,000 of these sample evergreens and gained thousands of new friends. This year we have

Reserved 600,000 Trees

for this **free advertising** distribution and if you want your share of them write at once for they will go fast. W. H. Gibboney, Mandan, North Dakota writes: "Please accept thanks for the sample evergreens. They are doing fine." This is but a sample of thousands of letters.

Our catalogue containing 64 colored plates of our **Hardy "Blizzard Belt"** Fruits, Ornamentals, Evergreens, etc., with a mine of valuable information for fruit growers, is free for the asking. Write to-day.

THE GARDNER NURSERY COMPANY, Box 802 Osage, Iowa.

We Want Every Reader

Of The Strawberry to know that he can take full advantage of the business-pulling powers of this magazine through the use of our

CLASSIFIED ADVERTISING DEPARTM'T

Only 3 Cents a Word

See announcement on Page 7

GOOD SEEDS CHEAP

BEST EVER GROWN

A wonderful big catalog **FREE** Full of engravings of every variety, with prices lower than other dealers'. Oldest reliable seed grower in America. No old seed. All fresh. They will grow or will refund money.

Big Lot Extra Packages Free with Every Order.

Send yours and your neighbor's address.

R. H. SHUMWAY, Rockford, Illinois

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 1 Three Rivers, Mich., January, 1907 $1.00 a Year

"RING IN THE NEW!" The past is gone; let it go, clinging only to that part of it that has broadened, heightened, sweetened life and made the new and the true and the more beautiful possible in the days that are before us. There are the "good old days", to be sure. It is well to let memory dwell fondly on the bright spots of the past. But there never was a day in the past that can compare with the days that are to come in the brightness and glory of their radiant possibilities. Never was Opportunity more generous in her offerings than now, and never had Knowledge so large a vogue, nor were her powers so highly appreciated. The world moves to higher planes of thought and action, and is more than ever disposed to recognize quality in the work of man's brain and hands. Progress is the watchword of the hour, and in very truth

"We are living, we are dwelling
In a grand and glorious time,
In an age on ages telling;
To be living is sublime."

So let us appreciate and enjoy to the full this New Year season, so prophetic of the future. The winter solstice is past; the darkness of the night season shortens perceptibly day by day; the morning sunlight grays the east just a little earlier and evening's glories linger longer with each passing day Prophetic of spring, with its unfoldment of life, are these signs of the heavens, and unconsciously our thoughts turn hopefully to that glad season, when root and bud and bloom, foliage and flower and fruit, join in the universal anthem of joy and praise.

STRAWBERRY FIELD OF JOHN RUCKER, BOSTON, N. Y.

In the strawberry world the year that has gone has taught us many valuable lessons. It was a hard year on horticulture in many sections of the country; in fact, there were few sections which did not suffer from some one or more of the elemental forces. Yet there were compensating conditions, and even where almost complete loss was suffered, if we rightly utilize that experience it may prove after all a "stepping stone to higher success." Down in the Atlantic-coast South where many folk rushed into the production of strawberries without adequate knowledge or preparation, and started off on a scale that only the thoroughly practiced strawberry grower ever should venture to do, the inevitable results have followed, and we hear many complaints, with threats of decreased acreage. On the other hand, men in that section who knew their business report fine success, and are loud in their assurance that the business opportunity offered in the Southern field to supply the North with early strawberries is limited only by the ability of the South to grow high-grade fruit in sufficient quantities and pack and ship it to market in first-class shape. And who would expect to win success with poor fruit, badly packed and delivered in unattractive form?

Over in Tennessee, on the other hand, the gloom occasioned by the excessive rains of 1905 has been cleared away by the sunshine of success in 1906, and to this has been added a fair prospect that the season for strawberry growing in that state is to be lengthened by the encouragement of "double-croppers," and one enterprising grower near Greenfield, Tenn., whose strawberry fields are located in a fertile valley, was enabled to supply large quantities to the people in New York about Thanksgiving time. But this did not take the edge off Gotham's appetite for the strawberry, as was shown by the fact that they gladly paid a dollar a box for the berries that came from Florida in December.

These incidents suggest how long a season, after all, the strawberry enjoys in this country of varied climates. They also suggest what possibilities lie in the lengthening of the strawberry season by a wise use of our climatic opportunities. One of the most suggestive photographs that have come to us this year is that of a field of strawberries growing at Wahpeton, N. D.,

and we have referred in the past to the extraordinary success of the late-grown strawberries of the Lake Superior region. The man who will raise late berries of high quality and send them to market in good condition, has an unlimited opportunity. The market awaits his coming, and if ten thousand of him appeared at once still the demand would not be met.

Then there is another point that must be of great satisfaction to the strawberry grower, and that is the assurance he may feel that if he does his part success will crown his efforts. At a meeting of the Michigan Pomological Society held a few weeks ago at South Haven, the experiences of the season were discussed at length and the consensus of opinion was summed up as follows: "Keep a stiff upper lip and raise fewer peaches and more small fruit." This because of the damage done to orchards by the severe Autumnal frosts that were so disastrous over a large section of the country.

Hard as the year had been upon the strawberry growers, it was infinitely more serious in the case of orchardists, and out of their sad experiences the latter turn to the growing of strawberries and other small fruits as a source of revenue almost unfailing.

With such confidence as this fact may inspire, and with the full assurance that if we set out good plants in good soil and give them proper cultivation, we shall harvest an abundant crop of fine fruit; and equally confident that if such fruit be properly picked, packed and brought to market in good condition that an immediate demand awaits it at a price insuring a fair profit—with such assurances and with the unlimited opportunities opening up before us, let us enter 1907 resolved to make the most of them and to make a new record for success. And The Strawberry extends to each and every one its very best wishes for A Happy New Year!

Lessons From Experience

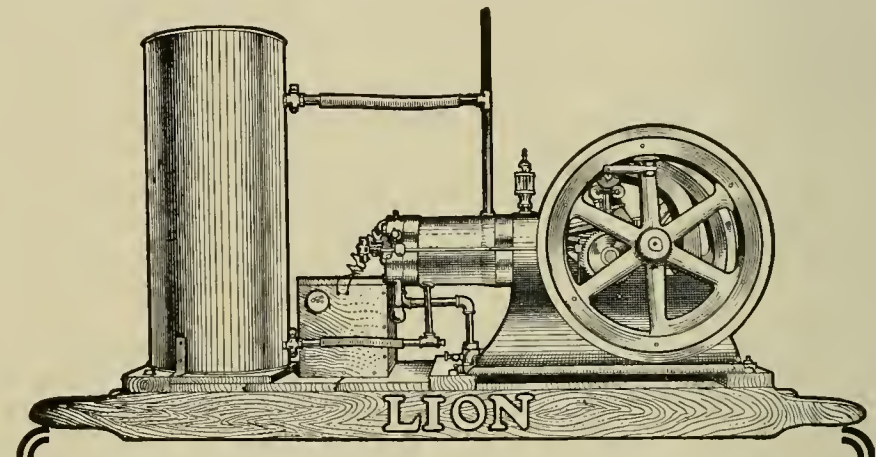
By A. D. Stevens

WORDS don't seem to be strong enough to express my appreciation of The Strawberry; the only regret I have is that it doesn't come often enough. The Correspondence School is of great interest to me. It shows the perplexities of our fellows all over the country and it delights me to see them so fully and, to my mind, satisfactorily explained. I have made a careful study of strawberry culture and know from experience that the advice given is practical.

We have made it a rule for the last twenty years to get every part of the work done in the fall in preparing ground that could be of any advantage in getting our plants set early in the spring. Usually we set our plants in March, if the weather is favorable. A few years ago there was a belief in this locality that strawberry plants ought to start a new growth before they were fit to dig and set out. One farmer said to me: "Well, it is getting time to set strawberries now; they are starting up nicely. Have you begun yet?"

I said to him: "Why, man! it is too late to set plants now; they have broken the callous on the roots now and digging them up will stun them. We have had ours set three weeks." I want my plants set before they wake up, and then, when the sun's rays do awaken them, they don't have to be put to sleep on moving day and then pout over it for a week or two. The truth was that while his plants were pouting mine were smiling in their new home and soon made him ashamed of his patch.

A few years ago I put a patch of plants out in early March. My father said it was too early to set them; that they would likely die. I told him that in order to decide which was right I would leave two rows in the middle of the field subject to



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

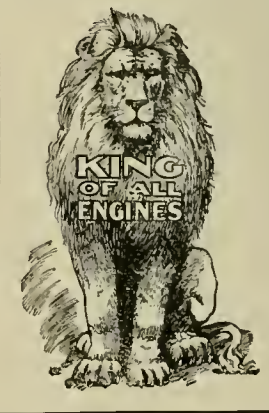
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

BALLOU MANUFACTURING CO., Belding, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in_____
Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

BALLOU MANUFACTURING CO.,
Successors to Lyons Engine Co.
BELDING, MICH.

his order, and waited until he said it was time to set those two rows of strawberries, which was about the middle of April. Those two rows never caught up to the ones which had been set earlier.

We usually mark our field both ways and until they start to run we cultivate them both ways, and we only have to hoe the hill the first three or four times, which is a great labor-saving plan. The last time we go crosswise of the row we take the hoe and smooth the soil and begin to get ready to train the runners. I find this to be a great advantage on heavy soil. A twelve-tooth cultivator or an iron scratch-harrow is the proper tool to go crosswise with, as it breaks the top of the soil yet doesn't disturb the plants.

There seems to be nothing else that we have tried for mulching on our soil that will give us as good results as stable manure. We have covered our four patches that we are going to fruit with car manure from New York City. We put from eight to ten tons to the acre. The manure costs us $1.85 per ton. As soon as spring opens up take a fork and part the straw from over the rows.

Our propagating bed we mulch with marsh grass, which makes an ideal mulch, as it doesn't pack tightly and removes all danger of smothering the plants.

Bridgeton, N. J.

What Shall This Young Man Do?

I HAVE been considering the advisability of taking up berry culture for some time. I am a subscriber of The Strawberry and like it very much. I should like to put the circumstances before you and would be greatly obliged if you will give me your opinion on this matter. I am a young man of good habits and reasonably good business education. I have taken a course in the Commercial college and have had about two years of practical experience. I was reared on a farm and am not afraid of work, but yet I know very little about berry culture. My means are limited and it would be very hard for me to get the capital with which to start. I had thought of trying to get a place with some berry grower and work a year or so and at the same time I could get some idea of the business. I had thought of trying to locate in Oklahoma somewhere. There seems to be a great demand for berries there. Still it is more or less subject to drouths.

What plan would you suggest for a young man of twenty-four to start into this business? What business would you suggest in connection with this for a start? Would you advise locating in the North or South? I have lived in Oklahoma several years. Any advice you could give me would be greatly appreciated, for the business is all new to me. Do you think it would be a good plan for me to work for some strawberry man awhile?

Hoping to hear from you soon, I remain,

Wichita, Kas. Yours truly, H. M. S.

LET us say at the outset that you have one great advantage over many of the young men who are today seeking means of independent livelihood. We note that you were reared on a farm, and this means that you have some knowledge of the science and of the art of soil culture. These are primary elements to success in strawberry culture, or at least are elements which ought to insure immediate success. And to this you have added commercial training and practice—invaluable in any enterprise. Then you are young and, we are glad to have you say—"are not afraid of work." With these elements in your favor, you should have no hesitancy whatever about engaging in a work which offers such large opportunity, and such practical assurance of success, as does the production of strawberries for market.

But we note that your means are limited. Perhaps if they were not you would not at this time be seeking an opportunity to enter into business for yourself. It is a good thing for a young man, very often, if his means are limited; for that very fact is an inspiration to strenuous effort to improve his financial condition. We cannot believe but that in the boundless Southwest in which you are located, there will be numerous ways for you to meet this difficulty. Fertile land lies all about you, an incalculable area of which is put to no use whatever. That some of those who own this land would be very glad to lease you as much as you would need for such a venture as you contemplate, and at a very low rate per annum, is not to be doubted. More than that, if you can convince them that you know just what you want to do and how to do it, we have no doubt that some of them would be very glad to go into partnership with you to the extent of backing you up, advancing cash for such small outlay as you would need to make.

Assuming that you could secure the land, the preparation of rich virgin soil for strawberries would be a matter of very small expense, and your plants should not cost you to exceed $30 an acre, at the outside limit. You should secure only the very best and most carefully bred plants, as your success primarily will depend upon the character of the plants you select.

With the great demand for labor everywhere in these days, you should be able to get sufficient work with the farmers in the neighborhood in which your strawberry field would be located to support you while your plants were coming into

It Will SAVE You to Ask
Our Special Time Price NOW on a
Detroit Tongueless Disc Harrow

You'll **Save in time—Save** your horses and save much harder work for yourself, if you'll simply write a postal for our proposition on a Detroit Tongueless Disc Harrow today.

Don't let yourself buy any other kind of a harrow until you have heard from us. It's well worth your while to find out what you can do with us. Especially worth your while to know all about the Detroit Tongueless Disc.

No weight on the horses' necks—no bruises, galls or straining from sharp turns or rough, hilly ground.

No Tongue at All to Pound Around.

You hitch to eveners on the light front wheel truck. Then your horses pull straight ahead all the time, turning and all. No tongue to cause tipping.

We Allow 30 Days' Field Test FREE

This new Tongueless of ours was **The wonder of the age** in Disc Harrows last year when we had 1463 orders more than we could fill. Think of that.

There are good reasons.

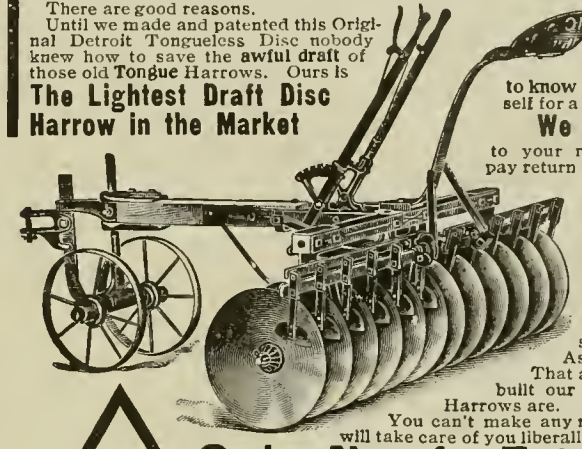
Until we made and patented this Original Detroit Tongueless Disc nobody knew how to save the **awful draft** of those old **Tongue** Harrows. Ours is

The Lightest Draft Disc Harrow in the Market

It rolls smoothly everywhere you drive and is **The Easiest for Horses and the Driver.**

We can't tell you the whole story here. But we want you to know the whole truth about what a desirable harrow the Detroit Tongueless Disc is.

The best way for you to know is for you to try it free yourself for a month in your own fields.



We Pay the Freight

to your railroad station and even pay return freight if you don't find our Detroit Tongueless just exactly what we say it is. It won't cost any responsible party a cent to try it NOW, or at the time you want to begin your regular harrow work.

All you need to do is to say in your order when you want to test it. We'll ship promptly.

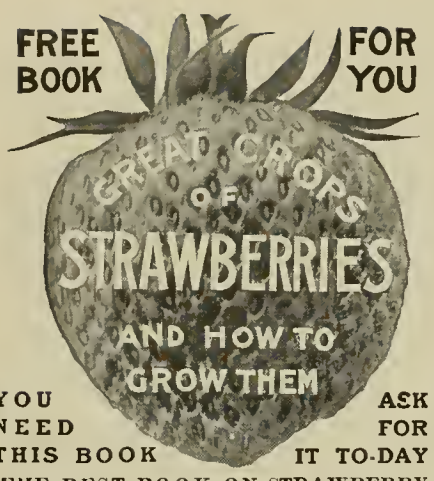
Ask for our free catalogue. That also tells all about how well built our Detroit Tongueless Disc Harrows are. That, too, will interest you. You can't make any mistake in writing us. We will take care of you liberally on a square deal.

This is only one of the Great Special Features—Truck Instead of Tongue

Order Now for Future Delivery

We advise you to send in your order right NOW, and we guarantee to make delivery when you want it. Handsome catalog and time prices on full line of sizes FREE. Write today.

Address **AMERICAN HARROW CO.**
4544 Hastings Street Detroit, Mich.



THE BEST BOOK ON STRAWBERRY CULTURE ever written, because it explains every detail of the work from the time plants are set out until the berries are picked, and tells how to prepare the plants for a big second crop. 125 Pictures of strawberries and strawberry fields. This book is worth its weight in gold. If we knew your address, would mail you one **Free.**

R. M. KELLOGG COMPANY, Box, 20 Three Rivers, Mich.

how to pick and pack them to insure a ready market.

Take this matter up vigorously, talk the whole situation over with some acquaintance of yours who possesses means, and who will have an interest in your welfare; talk with some good real estate dealer who has control of a large amount of land lying adjacent to Wichita, and we feel confident that before plant-setting time next spring you may be in position to enter upon an independent work, which will insure you not only a livelihood, but a steadily increasing annual income.

HERE we are, standing at the portals of the New Year. How shall we enter it—drooping, despondent, discouraged, or cheerful, confident, compelling? What 1907 means to you depends upon yourself. Don't try to lay your failures on anybody's else back. They will stick like burs to your own to bear you down and make your future dull, insipid, colorless. Don't recognize failure; don't let its soul and heart and nerve destroying microbes get into your system. "In the bright lexicon of youth there's no such word as fail!" cried Richelieu. And middle life and gray old age should sound the same glad note of strength and hope and joy.

WHEN straw, hay or other materials of that nature are not to be had, leaves will make a good protection for strawberry plants if poles, branches or other light weight are used to keep them from blowing away before the snow comes. Cornstalks used with leaves will answer the purpose and evergreen boughs are suitable if they can be obtained.

bearing. You can easily take care of two or three acres of strawberries for the first year, and still be able to work half-days for some neighboring farmer. This might provide you a home and your living expenses. The second year you would have your picking to do, which would require the employment of considerable labor, of course; but your sales would be cash each day, and this would furnish you ample means to meet your daily pay-roll, besides giving you a handsome profit.

We have thus suggested in brief outline, a plan for you to follow to overcome the difficulty you foresee because of your limited capital. We repeat that we are confident that if you will take hold of this matter vigorously, you will find that the least of your obstacles to success.

Now in selecting a location you must consider first of all, market possibilities. One young Wichita Strawberry reader is now earning his way through college by growing strawberries. We assume that that city would afford you an excellent market. If you have an acquaintance there among business men, you might find right there the very best opportunity one could wish for. It always is best to deal with those nearest at home, when it can be done.

Try and secure land lying sufficiently close to the city so that the expense of hauling your fruit would be reduced to the minimum and to insure your getting it into the market in the very best of conditions. Lease not less than five acres of land, and if possible secure an option upon five acres more, so that if your business justifies it, you will have ample room in which to grow. Ten acres of strawberries, cared for and marketed in the best possible manner, will make a fortune for any man of energy and intelligence.

As a reader of The Strawberry, you are familiar with its teachings as to soil preparation, methods of setting plants and cultivating them for best results, and

Just Ask for Our SPECIAL PRICE On this CHATHAM Fanning Mill

Our answer will surprise you.
Why? Well, there will be a lot of surprises.
First, the price that we will quote you.
Second, the easy terms on which we will let you pay for the mill.
Third, the Chatham Fanning Mill will actually, clean, separate and *grade* (yes, sir, we said *grade*, and we mean it!) from 40 to 80 bushels per hour—Its *capacity* is wonderful—Its *ease of operation* is remarkable—Its all-around *usefulness* and its importance as a *profit-maker* makes its owner wonder how he ever got along at all without a Chatham.

The Chatham Fanning Mill will handle all kinds of grain and seed. It tackles any kind of a job—It is "death on weeds"—Takes buckhorn plantain out of clover—in fact, wipes out any kind of a weed pest by giving you pure seed grain. It is equipped with 17 screens and riddles—a patent bagging attachment which saves one man's time, and more special, practical features than we have space even to name here.

Our idea is to build the Chatham so complete and perfect that the mill sells itself. We will ship you a Chatham Fanning Mill on *30 Days' Free Trial, freight prepaid*, no matter where you live. Use it all that time, *free*, while you are making up your mind whether to buy it or not. If it doesn't do all we say it will, send it back at our expense.

30 Days' Free Trial
Freight Prepaid

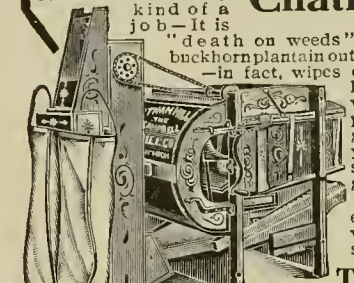
We're not going to *let* you keep it if it doesn't do the work and do it *right!* Selling Fanning Mills on the plan we do—direct from our factory to the actual user—*the very life of our business depends upon the satisfactory working of the mills we put out.*

All we ask is that you *try* the Chatham and let it *prove itself*—Let it show how it can quickly put its own cost *back in your pocket* and *make a profit* for you. The Chatham Fanning Mill isn't a luxury. It's a necessity! You need it on your farm right NOW.

Chatham Book Free

Send for the *Chatham Book FREE.* It tells of over 100 ways to increase farm profits. Tells how to stop the losses and make every cultivated acre on your farm yield crops in abundance. It's a regular Bureau of Free Information on Grain, Breeding, Planting and Seeding. It tells everything in a mighty sensible interesting way. Get it. Read it. Profit by it.

Sent promptly, postage paid, if you just ask for it on a postal card. If you live west of the Mississippi, write our Topeka office; if east, write to Detroit.



THE MANSON CAMPBELL CO. Ltd.
Box 385, Topeka, Kas. 385 Wesson Av., Detroit, Mich.
We have 24 Branch Warehouses and make prompt shipments.

Save Money by Making Up Your Own Fruit Boxes and Baskets

ON

"ADVANCE" FOOT POWER WIRE STAPLING MACHINE

A Time-Tested, Reliable and Fully Guaranteed Machine
Write for prices and circulars

Mfg. by SARANAC MACHINE CO.,
2731 Main Street ST. JOSEPH, MICH.

Intensive Strawberry Culture---Soil Preparation

By Frank E. Beatty

SUCCESS in strawberry raising depends upon the knowledge of the grower of the details of the business, from the preparation of the soil to receive the plants through the entire course, up to and including the marketing of the fruit.

There is such a thing as a complete combination in the growing of strawberries that will enable the grower to get a crop of berries under adverse conditions, and which, in favorable seasons will insure him a bumper crop. It is my purpose to give you the combination which has proved so satisfactory in my own experience. Let us bear in mind at the outset that too rigid adherence to any combination or set of rules will some time bring disaster, and that every grower must use his methods with such modifications as changes in weather, peculiarity of the particular season, etc., require. In dealing with nature we must accommodate ourselves to her changes.

The first thing in this combination is the putting of the soil into ideal condition, and to do this we must fill it well with humus, as well as with well-balanced plant food. Let us start right now to get one acre into shape for the production of a profitable crop of strawberries, and this cannot be done in a few months; and I may say right here that the amount of profit received will depend in large part upon the degree of care with which this preparatory work is done.

Let us assume that it is the first of October and that we are dealing with a piece of land that is pretty well exhausted. The first thing we shall do is to break up this ground as deeply as the soil will admit. Then work it well with harrows until a good seed bed is made. Then we shall sow five pecks of rye to the acre. This rye in an ordinary season will be sufficiently grown to shade the ground and the roots will penetrate the soil in such a way as to take up the winter manure leachings.

During the winter when the ground is frozen, cover the rye with well-decayed stable manure, using about fifteen tons to the acre, depending, of course, upon its quality and strength. If your other work will permit you to do so, and the manure is at hand, it would be better to apply the manure to the ground as it lies broken, working it into the soil before the rye is sown. But this is not always possible.

However, the only way to apply the manure over the ground is to evenly spread it, and I have found that the most economical way to do this is to use a manure spreader, as it tears up all the chunks and gives an even distribution.

THIS is the first number of a series of articles which it is intended shall take the beginner in strawberry production from the kindergarten stage up through the various stages of an educational career that shall end in his graduation as a thoroughly equipped professional. Last month we promised this paper for January, and as Mr. Beatty was invited to address the Northern Illinois Horticultural Society at its annual meeting held at Joliet December 4-6, 1906, and prepared a paper for that event, the first part of which covered this ground completely, we present that portion of the paper here. In future articles this course in practical instruction will be continued, each article covering points so far in advance of actual practice as to give every reader ample time to study and familiarize himself with them. The next article in this series will deal with matters relating to the setting of the plants.

When evenly applied the manure will in no way interfere with the rye, which will work its way up through it.

The manure and rye together will completely shade the ground during the winter months and leave it in a mellow condition for working in the spring. In the spring turn the rye and the manure under, going six or eight inches deep, and give it one harrowing, or enough to level off the furrows made by the breaking plow.

Then sow about 500 pounds of commercial fertilizer, allowing potash to predominate. We have conducted several experiments with commercial fertilizers and find that almost uniformly we secure the best results from using one that analyzes according to the following formula:

4 per cent Nitrogen
8 per cent Soluble Phosphoric Acid
9 per cent Potash

Work this fertilizer thoroughly into the soil, using a disc or Acme or spring-tooth harrow—some implement that will make a thorough mixing up of the soil and the fertilizer.

Now don't put in your plants yet, because we are going to plant this acre to some early potatoes, and the formula for fertilizer I have given you is for the benefit of that crop of potatoes. Plant your potatoes just as soon as you can get them into the ground, and harrow or use weeder a week or so after they are planted, or just before the potatoes peep above the surface. And from that harrowing until the potatoes are ripe, cultivate at least as often as every week or ten days, and always after a rain as soon as the soil will crumble. This will force the tubers along so they will be ready for early market and the big price that is obtained at that season. By digging your potatoes at the earliest possible moment you accomplish two important results--you will get the highest price for them, and you relieve the ground early, thus being able to sow

FIRST PRIZE WINNER IN THE STRAWBERRY PHOTOGRAPHIC CONTEST
W. C. Landis and His Patch of Strawberries at Shoals, Ind.

it to some leguminous crop so early as to insure its complete maturity.

If the potatoes can be marketed by the 10th of July, then I prefer sowing cowpeas, using Whippoorwill, Clay or Wonderful varieties, as any one of these make a very large vegetative growth. But if the ripening of the potatoes is delayed until as late as August 1, sow to Canadian field peas, as these will not be injured by early frosts.

If the peas ripen early enough in the fall to turn them under and sow rye again, we should repeat the operation of last fall, with the exception that we should not cover the ground with manure at this time. It is not a good plan to turn the peas under until after they have become woody, and if they have not sufficiently matured to follow this plan, let them remain on the surface and omit the rye.

When the peas are left on the surface as described, they should be rolled down as soon as the first freeze-up comes, as this will help them to rot and will hold the leaves and lighter portions of the vines from blowing away. However, I prefer turning under the peas in the fall and sowing the rye, if conditions admit of this course, turning them under about four inches. They will be more completely decayed than if left on the surface. Another reason for following this course is that in the spring we plow the ground about six inches deep, which will bring the pea vines close to the surface, and by going over the ground with some good mixing tool, the vines will be mixed with the old decayed manure and soil; and by having a large portion of the humus near to the surface the moisture in the soil is much more easily conserved. At this time apply 400 pounds of finely ground bone meal and 200 pounds muriate of potash.

Now all that remains to do in the way of soil preparation is to harrow the ground thoroughly and, if it is a sandy loam or loose black soil, to roll firmly enough to close up all the larger air spaces; these are sure to be in such soil. If a clay or heavy black soil, it will be better to leave it unrolled, save to break down any clods that may be on the surface. The pea vines and the vegetable part of the manure have furnished an abundance of humus. The plant food contained in the manure and the commercial fertilizer unused by the potato crop will be sufficient to feed the plants and keep them on the move until the last application of commercial fertilizer becomes available, which will be about the time the plants are building up their fruit-bud system and need it most.

In conclusion I might add that if your soil is in good condition to start with, it may be set to strawberries in the spring after the first crop of rye and coating of manure have been turned under, omitting the potato fertilizer and using the bone meal and potash instead. In the February number we shall discuss at length the many important details relating to the improvement of plants by selection and restriction, one of the most interesting and important features in the successful production of strawberries.

Wonderful New Oil Lamp

Floods your room with the finest, softest, pleasantest light, yet burns 1-2 to 1-3 less oil than any other. As totally different from all other lamps in results as it is in appearance. Used by many of the most particular people in preference to gas.

Proof positive of how entirely different The Angle Lamp is from all others is the class of people who use it.

What other lamp—or what other lighting system, for that matter—can show endorsements from ex-Pres. Cleveland, the Carnegies, Rockefellers, and thousands of others of almost equal prominence?

These people would not think of using ordinary oil lamps, yet they have chosen this oil-burning lamp for lighting their homes and estates in preference to gas, electricity, gasoline, acetylene, or any other method, because they have found that while as

Convenient as Gas or Electricity

to operate, its light is more brilliant than either, and of the beautiful, soft, restful quality for which kerosene is so justly famous.

But you need not take even this evidence of the superiority of The Angle Lamp. For the very fact that The Angle Lamp always surprises and delights even the most particular people enables us to offer you better proof yet—A THIRTY DAYS' TRIAL of any lamp listed in Catalog "54" in your own home, where you yourself can prove that it is the best, the cheapest and the most satisfactory of all lighting methods. Lighted and extinguished like gas. Filled while lighted with perfect safety. Requires filling but once or twice a week. Burned high or low without odor.

No Smoke No Danger

Just one thing more—Economy. If splendid light and convenience were the only features of The Angle Lamp it might be considered a luxury. But, as this lamp actually costs less to burn than even the troublesome, old-fashioned kind, it must be considered an actual necessity. Write for Catalog "54" listing 32 varieties from $1.80 up.

The Angle Mfg. Co., 78-80 Murray St., New York

The man behind the Planet Jr.

knows it takes *more* work off his hands, and makes him do *better* gardening, than any other garden implement made. Besides, **Planet Jr.** Seeders, Wheel Hoes, and Cultivators are well made and they are **guaranteed**—no other maker uses such materials or puts such work into his tools. Half a million users know how long they last.

The New No. 6 Planet Jr. Combination Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow is a whole set of the strongest and most useful garden tools ever turned out. It saves your time, labor and seed and runs easily in any soil. Does the work of three to six men, and does it far better. Opens the furrow, sows any kind of garden seed accurately in drills or in hills 4, 6, 8, 12 or 24 inches apart, covers, rolls the ground and marks out the next row—all at one operation. As Wheel Hoe, Cultivator, or Plow it adapts itself to every kind of crop, and is used all through the season.

We are glad to send anybody interested, our **New Catalogue** showing many scenes of successful gardening and 1907 Planet Jr implements—Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding Cultivators, Harrows, Orchard- and Beet-Cultivators—45 kinds in all. Even if you have a Planet Jr. send for the 1907 catalogue and see the new things. Write today.

S. L. Allen & Co., Box 1106D Philadelphia, Pa.

BERRY BASKETS AND HALLOCK BOXES

Also Beekeepers' Supplies sold at a reduced price and shipped from Central Michigan. Send for 32-page catalogue free. **W. D. SOPER, Jackson, Mich.**

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter III—Which shows That One Mistake May Cause Many Bitter Disappointments

THE season advanced rapidly and a more perfect one for strawberries could not have been asked for. As the days went on, I observed, however, that though the bloom rapidly was disappearing, every bloom was not turning into a big red berry as I so confidently had expected. In fact, the berries were very "shy", and many of them were ill-shaped things that came far from meeting my ideals of what a strawberry should be. It is unnecessary to say that I felt blue and discouraged, and set out to discover what could have happened to produce such disappointment when the bloom had been so beautiful and so promising.

Just at the moment when I was about to give up in disgust and despair, I had a visitor who was an old friend of mine and had grown strawberries for many years. He was a kindly old man and entered sympathetically into the consideration of the circumstances, sincerely hopeful that he might help me out.

"What varieties have you got planted here, Frank?" he asked as he surveyed the field. "There's something wrong here sure, for the plants certainly look fine."

"Why, I just went over to my neighbor's fields and dug up two kinds that he thought looked the best in his patch. He said they were Warfields and Crescents."

"Well, what have you got here as a bisexual?"

"Bisexual!—what advantage would that have been?"

"Why, Frank, while the Warfield and Crescent are two of the best varieties ever grown, they are pistillates, or female plants, and you should have set male or bisexual plants with them. Had this been done, you surely would have grown a big crop of fruit this year. What neighbor did you get these plants from?"

"My adjoining neighbor, right here."

Well, we went over to the neighbor's fields and talked with the man. We found that he knew nothing more about this matter than I did, as he too was virtually a beginner; but by some sort of luck had planted enough bisexuals to pollenize his plants and give him what he considered a fair crop.

My first impulse was to give up, as I have intimated. One reason was that I feared the land I had bought on credit was not adapted to strawberry growing. Then I thought of the blistered hands, the aching back, the bitter moments of disappointment, and that made me bluer than ever. But my old friend had shown me that the land was all right; that I had made a bad blunder, and that it was all my own fault. Then, said I, if the land is all right and nature is all right, what wonderful things a man might do in strawberry production if only he would work harmoniously with nature's laws—do his work on scientific lines! And new courage and resolution came to me, and I said, "I will not give up, but will study to make this business a real success!" That was the turning point in my career, and although I have made mistakes since, and some very discouraging results have followed, I always have had confidence that if I did my part, things would come out all right.

In the midst of these reflections, the thought of the two acres that I had set out that spring for next year's fruiting, flashed into my mind, and my heart quaked for a moment. I told my friend about it, and he asked at once, "Did you get the plants for that bed from your Warfields and Crescents?"

"Some of them, and a part I bought of a nurseryman."

"What was the name of the varieties you bought?"

"Why, they were Jessies, Gandys and a few Michel's Earlys" I replied, holding my breath for his verdict.

"Well, that's luck! You're all right for next season, Frank, for those are bisexuals and will mate your pistillates and insure a good crop!"

The joy I felt at that moment none but myself may ever know. And this last remark of my friend was the thing that clinched my resolution to make a win of the enterprise, and as he soon had to leave me to catch his train for home, I went to the house and said to my wife: "Well, we've learned something, but the tuition fee in the school of experiences comes mighty high." I told her just what the situation was, and that I was now more determined than ever to make this business a big success.

"Strawberry growing is a science," I said, "and I'm going to dig down to the bottom of things and know just what to do and when and how to do it to get and keep control of the work."

I found I had tackled a big proposition. The first thing I sought for was some literature on the subject, but could find no book that would help me out. But, fortunately for me, some friend had asked R. M. Kellogg to send me a copy of his book on "Great Crops of Strawberries," and when I received it I read it until its pages were frazzled. It opened up an entirely new world to me. I said to my wife: "Whether the man who wrote that book is practicing what he preaches, I don't know, but I do know that what he says is just good plain common sense, and I'm going to begin some experiments along his lines, and with the help I get from this book, along with my experimenting, I am confident that we shall clear away the clouds, and it won't be long before the sun will be shining for us."

My mistake that had cost me so heavily was a serious matter with me, but the hardest thing to bear was the thought that it would compel me to go back on the road for at least another year. But being fully determined that I would not give up I secured the services of a good practical man whom I could trust to see to things in my absence, and returned to my old line of work. The man had nothing of the shirk about him, and worked as if the place was his own. Those two acres received the very best of care until the growing season was ended when they were well mulched and the work of hauling manure on the land was begun in preparation of several more acres for setting the following spring. On stormy days he spent his time in making picker's stands, crates and boxes, and everything moved along like a well-greased wagon.

While the man on the farm was looking after things at home I was digging away on the road, spending my evenings in formulating plans for the experiments

WITH this instalment Mr. Beatty enters upon the practical work which is to make his autobiographical sketch of such value to our readers. From now until its completion it will be a veritable school of experience in strawberry production, and not a single number should be missed by those interested in reaching high success in this field of endeauor.—Editor The Strawberry.

Have You Something to Sell or Trade?

If You Have, Advertise it io the Classified Advertisiog Pages of The Strawberry

BEGIN with the February issue, and let us show you how easy it is to dispose of a good thing when you have a medium of this kind. It doesn't make any difference whether it's strawberry plants, an incubator or brooder, a surplus cultivator, harrow or manure spreader, or a tract of land you can advertise it to the world at a cost of

Only Three Cents a Word

Just write out your advertisement, count the words and send us three times as many cents for a trial order for our February issue, and see how quickly you will make a sale or a trade deal. THE STRAWBERRY

Doerr's Yellow Dent Corn

BOYS We Want Your Help in 1907

We are originators and scientific breeders of Doerr's Yellow Dent, in many ways the best Yellow Corn in cultivation.

We want every Strawberry boy's help to grow this corn and sell it to his neighbors and help us start it on every farm.

Can we depend on you for help?

You boys hold the golden key to corn improvement of the corn belt. We will pay 25 cents on the $1.00 (to boys only). Will you join our army, and write us today so we can send you our plan? Address

A. T. DOERR & SONS, HARVEL, ILL.

1907 Catalog FREE Describes and prices 45 varieties fancy poultry and eggs. S. A. HUMMEL, Box 13. Freeport, Illinois

I was determined to make when once more I was at home on the farm. And long before spring opened I had completely mapped out my plans for tests and experiments.

And this leads me to speak of the importance of planning ahead, so that when the season for activity arrives all that you have to do is to execute the plans. My experience then and since has taught me that to get one's plans laid out on paper during the winter months is one of the most important steps one may take in the direction of success, and if any grower is not now blessed with the degree of success he has hoped to win, it may be because he is not expending sufficient time and thought in this very work. Spring is a time for rush work in the strawberry field, and without well-matured plans the grower is bound to make many unnecessary—perhaps false—moves, and is liable to suffer serious loss as a result.

The Photographic Contest

WE are pleased to be able to announce the result of the photographic prize contest this month, and the following report from the judges—two photographers of high standing, who also are familiar with strawberry fields and what is expected of them—will give the details:

THREE RIVERS, MICH., Dec. 15, 1906.
The Kellogg Publishing Co.,
Gentlemen:

We, the judges appointed to pass upon the large number of scenes of strawberry fields entered in The Strawberry photographic contest, take pleasure in making the following report:

Without hesitation, we awarded to W. C. Landis of Shoals, Ind., the first prize, both for the remarkably fine appearance of his strawberry bed, and for the unusually high-grade photograph exhibiting it.

We unanimously awarded second prize to Elmer Smith of Urbana, Ohio, and to C. W. Gordon of Montville, N. J., the third prize.

There were some indifferent photographs of very fine fields, and excellent photographs of some fields that did not rank high, and in casting up the points of the several contestants, Messrs. Landis, Smith and Gordon were found to have the highest numbers.

Very truly yours,
V. H. VAN HORN
CHAS. SILLIMAN

We wish to announce thus early another contest of the same character and for the same sums for the season of 1907. We hope that hundreds of our friends may take part in this second contest. Nothing helps along the cause of good strawberry methods as does these beautiful pictures of actual achievements. The conditions in the 1907 contest will be the same as in the one just closed, namely: Best photograph of strawberry field, $5; second best, $3; third, $2. All photographs submitted to remain the property of the Kellogg Publishing Company.

Now who will send us the best in 1907? Let everybody try; for it will pay even if you are not one of the prize winners. Let us make the 1907 contest a memorable one.

ONE recent subscriber to The Strawberry writes us that he will be glad to pay $2 for a set of copies of The Strawberry, constituting Volume I of this magazine. If anyone having these twelve numbers wishes to dispose of them at this figure, we shall be glad to arrange the transaction.—Editor The Strawberry.

THE greatest sash, door and general woodworking house in the world is that of Gordon, VanTine & Co., at Davenport, Ia. Compared with what they charge the consumer, the ordinary prices at which these goods usually are sold seem extremely high, but this is due to two things—they have such a mammoth plant, perfectly systematized, and they sell directly from factory to consumer. Take for instance a four-paneled door of high quality; the dealer's price is $2.00—the retailer pays his jobber $1.15 for this door—the jobber pays the average maker 87c for it. Gordon, VanTine & Company sell direct from their immense factory the same door for 80 cents. In other words, they sell a door of warranted quality fine white pine to the consumer for less than the jobber pays the average small maker for it. You save therefore the jobber's profit of 28 cents, and the retailer's profit of 85 cents, besides the difference between Gordon, VanTine's low factory price and that of the average factory, a total difference of $1.20. Is it any wonder that they do such a tremendous business? You will find it to your interest to get one of their catalogues and study up the situation, if you are to build or make any repairs. Address Gordon, VanTine & Co., Station B79, Davenport, Ia., mentioning The Strawberry.

Planet Jr. Tools
are guaranteed

—the best-working, easiest-running, longest-lasting, most reliable farm and garden tools. Designed by a practical farmer. Do the work quickly, right, without injury to plants Made of the very best materials, with good honest workmanship.

No. 17 Planet Jr Single Wheel Hoe, Cultivator and Plow. One of the handiest implements ever made for gardening. All cultivating parts are of high-carbon steel to keep keen edge. Specially designed to work extremely close to plants without injury. One man easily does the work of three to six.

Planet Jr 12-tooth Harrow, Cultivator and Pulverizer is a splendid tool, for berry-growers and market gardeners—invaluable wherever fine, close work is needed. The twelve chisel-shaped teeth and the pulverizer leave ground in the finest possible condition. Saves many times its cost, and turns hard work for three men into easy and better work for one.

A Planet Jr farm and garden tool for every need—Hill- and Drill-Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding Cultivators, Harrows and Orchard- and Beet-Cultivators—45 kinds in all.

Even if you have a Planet Jr write now for our new *1907 Catalogue*, showing photographs of successful gardening at all stages, also the interesting new models.

S. L. Allen & Co.
Box 1106D, Philadelphia, Pa.

SPRAYING INDOOR PLANTS

Spraying Under the Leaves

FOR spraying plants indoors and out, the **Lenox Improved Sprayer** is one of the most serviceable devices for house use. Unlike the old-fashioned rubber bottle, which is clumsy and inefficient.

Plants when housed generally suffer from lack of moisture, such as rain or the morning dew give them; furnace or stove heat affect them badly. **This Sprayer** substitutes a misty shower that supplies the plant most naturally and completely, as is absolutely necessary to real success with house plants.

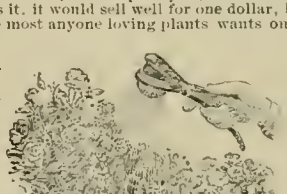
It is not a Sponge—it is a rubber bulb of best quality rubber, having fine perforations. By compressing the holder and dipping it into a dipper full of water, the bulb responds and immediately fills, ejecting a misty spray upon the plant, under and over the leaves.

An Occasional Spraying—using tobacco water, particularly reaching under side of the leaves, will surprise you, and collecting of aphis or dust is impossible. So valuable is it, it would sell well for one dollar, but we find that through the mail we sell ten to one at fifty cents. Because most anyone loving plants wants one, **the price must necessarily be low.**

Help the Plants

50 Cts. Post Paid

Sent complete with a cake of tobaccco soap to everybody. Make a Suds and Spray your Plants--- Results will surprise you.



With 2 Cakes of Tobacco Soap and 2 extra bulbs for laundry use, all for **$1.00** Post Paid

How Much Mother Would Like One!

THE LENOX MFG. CO. - - 511 Sixth Avenue, - - NEW YORK

The Rainy-Day Strawberry Patch

By Elizabeth Clarke Hardy

GRETCHEN'S father owned a cattle ranch of many hundred acres in one of the fertile valleys that nestle warmly down among the foothills of the Olympic Mountains in western Washington. It was a beautiful place to live. The ranch home was commodious and comfortable, the climate was perfect and God's beautiful out-of-doors was a source of unfailing delight. On one side the undulating foothills stretched away in broken, green billows to the distant mountains which pierced the blue sky with their snow-crowned tops, while on the other luxuriant fields of timothy and alfalfa waved in the soft summer breeze like a beautiful green sea, while still farther, on the cattle ranges, fed the sleek steers and heifers which later on were to be driven to Tacoma and sold for a good big bunch of money.

Gretchen never had experienced a lonesome day in her life. She attended school with her brother Dick, riding their ponies into Skokomish in the morning and returning home in the evening, and then hadn't she her blessed mother, who staid all day at the ranch with only the company of faithful old Ning Poo, who was a sort of general factotum at the Fielding ranch, and who would have sacrificed anything but his sacred cue for any member of the Fielding family?

Gretchen never had felt so very well acquainted with her father. He was away from home very much of the time attending to the stock on the distant ranges. He provided generously in the way of the necessities of life for his family; further than this his sole object seemed to be to lay up money for a rainy day. Gretchen had heard of this rainy day so often that she sometimes told Dick that she wished it would come so that they could have a few things that she knew they never would have unless it just poured, and Dick, too, sometimes wished for a little shower, but only on account of the dear, patient mother.

Once in a while Mrs. Fielding would tell her children stories of her beautiful girlhood home in the far East that seemed to them like fairy tales. She told of beautiful rooms with soft velvet carpets and filmy lace curtains and easy chairs and dainty china and table linen. But it was when she told of her studies in the School of Music, and of the beautiful piano that was the comfort and delight of her girlhood days, that her eyes would sometimes grow misty and such a far-away look come into their depths that Dick would go out and bang his sturdy little fist against the barn door and Gretchen would brush away angry tears and think resentfully of the rainy-day fund and how much happiness a small bit of it would bring into her mother's life. And her own life too, for that matter, for had not her mother told her that if only they had a piano she would teach her to play? And music was the one passion of Gretchen's life as well as that of her mother.

Once she had asked her father to buy a piano, but his stern, almost angry refusal had brought such a look of pain into her mother's face that she had never spoken of it again. But very often she and Dick would talk of the time when they would have money of their own and then—but that seemed a long time away to twelve-year-old Gretchen and ten-year-old Dick.

> WHETHER or not the world owes you a living, it is certain that you owe the world a life; and the best one of which you are capable. Being here, you are here for something, and what else can that something be than to live bravely, nobly and manfully as you may? To make the path a little plainer for other feet; to add a little to the light that is battling with the gloom; to make the world a little better, cheerier and happier for your presence in it---that is the debt you owe."

One vacation Gretchen went to visit a school friend whose father had a small fruit farm near Puyallup. She staid a week and when she came home she was full of suppressed excitement. She flew out to the barn where Dick was feeding the ponies and fairly dragged him out into the old, unused barnyard which had been vacant since her father had moved his cattle over to the further range.

"Now, see here, Dick Fielding, I want to tell you what we are going to do. We're going to raising strawberries. I told Mr. Hill about this old barnyard and he said it was just the place for a strawberry bed. He said he would give me enough plants to set out the bed and that we could drive over to Puyallup with the ponies and buckboard and get them just as soon as we got our bed ready. It's got to be plowed and harrowed and made nice and mellow, and we've got to get the plants set out just as soon as possible. There's money in strawberries, lots of it, and its lots of work to raise them; but I guess we're willing to work, Dick Fielding, if we can earn some money of our very own, aren't we?"

"Sure, we are, Gretchen. But won't you have to ask father about using the barnyard for a strawberry bed? Maybe he'll want it for something else."

"No, he won't; and I don't care if he does. Ning Poo has never thought to use this ground for his garden, and I'm glad of it. We won't ask anybody to help us. We can plow it up with the ponies and Ning Poo's plow, and we'll get it ready and set out the plants before father gets home, and I'll risk his making a fuss when I tell him what Mr. Hill made off a quarter of an acre of berries this year."

Dick soon become quite as enthused as his sister, and refusing Ning Poo's offer of help, the children soon had the old barnyard in fine condition for the plants. When they drove home from Puyallup Mr. Hill was with them and stayed to show them how to set the plants and praised their nice, mellow strawberry bed.

"Of course you will not get any berries this year, but next year, if you take good care of the patch, you ought to make a pretty penny off from it. When they begin to ripen, you drive over to my farm and I will let you have some boxes and maybe I can help you to market your crop," he said, as he took his leave.

When Mr. Fielding came home he was in very good spirits. He laughed at his children's enthusiasm over their new project, and in a moment of generosity he agreed to buy all the berries they could raise on their patch and pay them twenty cents a quart.

"Will you? Will you do that father?" cried Gretchen, earnestly.

"Why, sure I will, and you can have Mother and Ning Poo as witnesses to the agreement. I don't think I'll be much poorer for buying and eating all you'll raise. I'll try and be around home in strawberry time, and Mother is a master hand at making strawberry shortcake."

"And I would like once more to make

some of the real old-fashioned strawberry jam such as mother used to make," said Mrs. Fielding. "I suppose Ning Poo might have raised strawberries if only we had ever thought about getting the plants for him, but he has a good deal to do as it is, and I'm glad the children feel like putting in their spare time with strawberries."

And put in their spare time they did. In that climate the summers are dry, but their strawberries did not suffer for water. They sunk a large tank near the bed and piped water from the windmill into it and then by an ingenious device of their own, consisting of a long, movable trough with small holes bored at intervals, they managed to keep the plants watered and in fine condition.

The next summer in strawberry time Mr. Fielding came home to see a beautiful sight in the old unused barnyard. The long, straight rows of dark green plants were simply loaded with great, luscious, dark-red berries. There were strawberries on the table every meal, and Mrs. Fielding made up an enormous quantity of jam. She kept strict account of every quart that was picked and Mr. Fielding was somewhat surprised when the last quart was used and his wife asked him for $40 to pay the children for their berries.

"Forty dollars!" he cried incredulously. "And you expect me to hand over $40 for these children to fritter away?"

"I expect that you are a man of your word, Henry. You promised to pay them for their berries or they would have sold them elsewhere," replied Mrs. Fielding, quietly.

Her husband handed her the money without another word, but when Gretchen and Dick were handed $20 apiece by their mother he could not refrain from saying: "That's a big bunch of money for you youngsters to squander. What are you going to do with it?"

"We ain't going to spend one cent of it. We're going to save it for a rainy day," answered Gretchen promptly, much to the surprise of both her parents.

"Good!" said Mr. Fielding heartily. "You just go over to Puyallup and put it in the savings bank, and if you keep on doing as well as you have with your strawberries you will have a good bunch when you come of age."

The children kept their own counsel, but that fall they asked Ning Poo for a little piece of his potato patch to put into berries.

"Belly well," said the smiling Ning Poo. "How muchee you wantee? I givee you flitty feet. You thinkee that plenty?"

"Oh, yes, Ning; that will be plenty for this year, and maybe you will give us 'flitty' feet more next year."

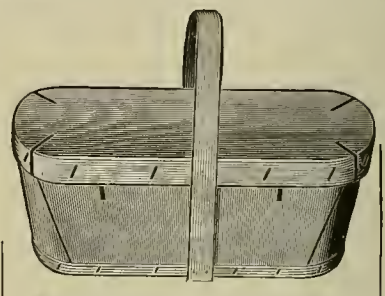
"Mebby so," answered the smiling Ning Poo, and so the children set out a new strawberry bed that fall. They did not neglect the old one, but hoed and cultivated and weeded and kept it in fine condition, and many were the secret conferences they held together down behind the old barn with no one but the strawberry plants for an audience.

The next year their father would purchase only a limited supply of the berries, but nothing daunted, the children prepared to market their crop. While attending the winter term of school they made a canvass of the little town of Skokomish and contracted with many of the housewives to furnish them with berries the coming summer. They also visited the two leading hotels and contracted to supply them with all the berries they could use.

Then when school was out for the summer vacation, Gretchen visited Mr. Hill once more. She came home with a supply of berry boxes which she and Dick proceeded to set up and store away in the loft over the barn. She had agreed with Mr. Hill to have him market all her surplus fruit on a very small commission, and she and Dick were to drive to Puyallup with it in the cool of the early mornings. And so they came to the strawberry season with all arrangements made for disposing of their crop.

This year Mr. Fielding asked no questions beyond making sure that the children were depositing their earnings in the bank. The idea of his children thus early in life beginning to follow his example of laying up money for a rainy day pleased him immensely, and he facetiously dubbed their field of operations "The Rainy-Day Strawberry Patch," while their mother looked a little sober over her children's apparent penuriousness.

The third year was a bumper season for all fruit in the state of Washington. The children had to hire some young people from a neighboring ranch to help pick their crop, but they were too saving



BERRY BOXES

and all kinds of Fruit Packages

OUR SPECIALTIES:

Quart and Pint Berry Boxes, 16 and 24-quart Crates, Picking Stands, Bushel Crates for Vegetables, All Kinds of Grape and Peach Baskets, Bushel Baskets with or without covers, Half-bushel Picking Baskets with strong handles, and many other convenient packages for fruit and vegetable growers; the most durable made

Write for our **Free Catalogue.** It describes and illustrates everything we make

GEO. B. THAYER & CO., Benton Harbor, Mich.

Let Me Quote You a Price on the AMERICAN Manure Spreader

We manufacture and sell the celebrated American Manure Spreader to the consumer direct from our factory—saving all the middle profits made by jobbers and dealers. These profits are left out of consideration in the prices that I want to make you direct from our factory on an American Manure Spreader.

This means that you can buy from our factory at factory prices—be a Wholesale Buyer.

And that isn't all! We don't ask you to pay cash in advance.

We sell the American Manure Spreader on Time—

liberal time payments—giving our customers easy terms to pay for their Spreaders—letting the Spreader really pay for itself as it earns for you.

We are the only concern in the United States manufacturing and selling Manure Spreaders direct to the user on time and on trial at low factory prices.

The American Manure Spreader has 40 per cent more exclusive features than any other Spreader. It is high-class in every respect—made to last a lifetime.

There is no question about the American Manure Spreader being the standard Spreader of the world.

30 Days' FREE Trial

To prove all of our claims for the celebrated American Manure Spreader, we allow 30 days' trial on every Spreader we sell.

This permits the customer to use the Spreader on his own farm for a full month to be satisfied that it is just as represented. If not as represented it can be returned to us. We pay all freight both ways—trial being FREE.

The low price I want to quote you on an American Manure Spreader will be for the Spreader delivered at your station.

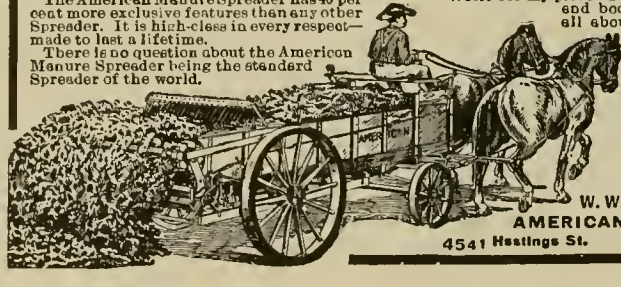
We Pay All Freight

This price will be for the Spreader on time—this price will be for the Spreader on trial—and this price will be a price that is lower than dealers are charging for Spreaders that are not nearly so good as the American. When you examine all the exclusive features of the American you will agree with me.

Write for my price—and write for my catalogue and booklet. They will tell you all about the American Manure Spreader and give you a lot of good information on the question of fertilizing—a question that every farmer is interested in and wants to know all about.

Just write me today on a postal card.

I will see that you get our book and my especial price at once.



W. W. COLLIER, Gen. Manager
AMERICAN HARROW CO.
4541 Hastings St. DETROIT, MICH.

to pay out their money, and so allowed the pickers the use of their ponies through the berry season to pay for the picking in the early mornings.

This year, after supplying their customers in Skokomish and selling their father the season's supply, they carried their fruit to Puyallup and shipped it direct to Tacoma, thus making a few cents more on a box than when it was handled by a middleman.

When their third crop was marketed Mr. Fielding quizzed them pretty closely as to how much they had to their credit in the bank, but they were discreetly silent as to the sum of their deposits.

"How would you like to have me take your savings and buy up a bunch of calves?" he said to them one day. "They would double your money in another year and I think it would be a pretty good investment."

The children looked at their father a little doubtfully.

"We'll think about it," said Gretchen; and then they ran down to their strawberry patch to talk the matter over.

"It would be all right," said Dick, if we were sure of father handing us over the money when he sold the steers. But you remember how it was with poor old Baldy, after I had nursed and cured his broken leg and he had got so nice and fat, father sold him and kept the money—all but one dollar."

"Yes, I remember. They would very likely be our calves and father's steers, and anyway we would just better keep our money in the bank and then we will be ready for the rainy day when it comes. And oh, Dicky boy, it can come any time now, and ain't you glad, glad, glad?" and Gretchen flung her sunbonnet far out into the green strawberry vines in the exuberance of her joy, while Dicky boy stood on his head until his face looked like an enormous beat with leaves of wildly waving legs, and then they both went soberly back to the house and told Mr. Fielding that they thought they would leave their money in the bank so as to be prepared for the rainy day if it should happen to come.

When the fall term of school began, Gretchen and Dick quietly took up their studies, but when they were riding their ponies into Skokomish or returning home they indulged in secret and most exciting controversy. Plans were laid and then set aside while others were formulated, and at last one Saturday they both rode into Puyallup and had an interview with a business man who had been recommended to them by Mr. Hill.

They had planned to go again to Puyallup a little before Christmas, but the rainy season set in with such copious showers as to make a trip of that distance entirely out of the question.

Mr. Fielding came home to spend the holidays and there were Christmas gifts for the children and for Ning Poo. Mrs. Fielding always saw to it that her children had a merry Christmas, and usually they had some little gift for her, but this year there were no gifts forthcoming from her children; and while she did not in the least show her feelings, she could not but wonder a little sadly if they were growing to be as penurious as—and then her loyalty to her husband hushed the thought, and she turned a smiling face to her little household.

The day after Christmas was clear and sunshiny, and Gretchen and Dick mounted their ponies in the early morning for a ride over to Puyallup. They returned late in the evening and for the next few days the Rainy-Day Strawberry Patch seemed to need more than usual attention from two excited young people.

"Do you think it will rain tomorrow?" asked Gretchen anxiously of her father, the day before New Year's.

"Well, it looks very much as though we might have a soaker," answered Mr. Fielding.

And sure enough, on New Year's morning the rain came drizzling down. The children wandered restlessly about the house and by the middle of the afternoon they were watching from the hay loft in the barn the road that led to Puyallup.

Suddenly around the turn of a little hillock came a stout team with a covered wagon loaded with an enormous canvass-covered box. It drew up in front of the ranch house and as Mr. Fielding came hospitably to the door the man on the seat said cheerily:

"How de do, Mr. Fielding. I've got something here that I think we had best set in out of the rain as soon as possible."

Mr. Fieldlng looked at the box suspiciously.

"I think you are mistaken," he said; "I haven't ordered anything that I know of."

"Oh, I guess it is all right, anyway," answered the man, cheerfully, winking at the children, who at that moment entered at the back door from their retreat in the hay loft.

Mrs. Fielding looked from the man to her children and then at her husband in wondering amazement.

"I guess you'll have to lend a hand," said the man to Mr. Fielding after he and the driver had adjusted boards and backed the wagon up to the door.

Gretchen flew into the sitting-room and begun frantically to move chairs and tables while Dick lent a hand with the big box, and in a few moments the beautiful new piano was standing in the rather shabby little room, and the men who had brought it were driving away through the warm Washington drizzle.

"It's yours, mamma, a New Year's gift from Dicky boy and me," cried Gretchen as the two children danced around the room too excited and happy to stand still.

"My dear, good children," was all Mrs. Fielding could say, as she gathered them into her arms with happy tears run-

Economy Kitchen Cabinet

DIRECT FROM FACTORY TO YOUR HOME

GREATEST LABOR-SAVER EVER DEVISED FOR WOMAN
NOTHING LIKE IT TO BE HAD FOR THE SAME MONEY

One Woman Writes: "I would not know what to do without it it saves so many steps."

See the Conveniences and the amount of room it contains:

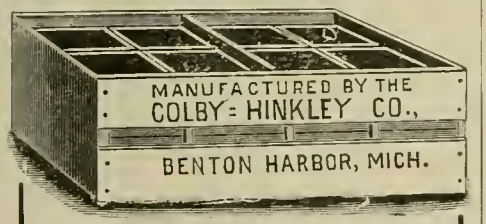
DESCRIPTION—Top Cabinet is 27 in. high, 8 1-2 in. deep, and 12 in. wide; it has a shelf above 8x40 in., with 2 large and 2 small drawers, and a place on either side for flavoring extracts, towels, etc Top of base is 26x15 in., made of whitewood; underneath this is a kneading, meat and bread-cutting boards; has 2 drawers; 2 large flour bins, holding about 50 lbs. each. This cabinet is made entirely of white maple, finished natural and built in the most substantial manner, making it one of the most convenient cabinets on the market

References: First State Savings Bank
Kellogg Publishing Co,, Three Rivers, Mich.

ECONOMY CABINET CO., THREE RIVERS, MICH.

COMFORT CONVENIENCE CONTENTMENT $9.45

Shipped Promptly on Receipt of Price



BERRY BOXES
BERRY CRATES

In flat or made up. All kinds of

BASKETS

BEST GOODS RIGHT PRICES

Send postal card for catalogue

Colby-Hinkley Company
BENTON HARBOR, MICHIGAN

ning down her face. Mr. Fielding came back upon this little scene after he had pitched the big piano box out into the back yard. There was a queer look in his eyes as he said rather shamefacedly.

"Now I'd like to know what all this means. I thought you youngsters told me you were saving up your money for a rainy day."

"Well, it's raining, isn't it?" said Dicky boy, with a little air of independence that brought a twinkle into his father's eyes.

"And it was our own money anyway. We made every dollar of it selling berries from our Rainy-Day Strawberry Patch," added Gretchen, as she gently pushed her mother toward the piano stool and waited impatiently for her to begin to play.

But as Mrs. Fielding's fingers began to wander softly over the shining keys and the tender strains of 'Home, Sweet Home' filled the shabby little room like a New Year's benediction, a strange thing happened. Mr. Fielding cleared his throat once or twice and then said, a little huskily:

"The new piano makes the other things look a little shabby, Mary, and I guess I'll have to do my share toward fixing things up a little," and he laid a big roll of bills on the keys of the piano and slipped out into the kitchen where the faithful Ning Poo was busy preparing supper, to be met with this startling bit of philosophy delivered in Ning Poo's most innocent and unconscious manner:

"Lainy day mighty good thling sometimes. Lainy Day Stlawbellies make heap good times. Mebby good plan set out gleat big patch Lainy Day Stlawbellies, Mis'r Fielding."

"Mebby so, Ning Poo," answered Mr. Fielding, with a new note in his voice that did not escape the observant Ning Poo.

Some Diseases Dangerous to the Strawberry

By R. L. Adams

SUCCESSFULLY to grow any crop a thorough knowledge of the troubles to which it is subject is not only desirable but essential. This is particularly true of the strawberry, for, while it is not attacked by many diseases, there are one or two that do an immense amount of damage, and a knowledge of these is necessary to insure success.

With the exception of the leaf-spot the strawberry is not severely troubled with fungous diseases. Of course, in certain sections and during weather favorable to their development, others may appear. It is these exceptional conditions which make it necessary to watch the growing plants and supply a remedy on the first appearance of any disorder. To do this intelligently the wise grower will learn the symptoms of all diseases that may crop out.

The characteristics of the worst disease, the leaf-spot (*Sphærella Fragariæ*) is known to every grower. It is variously called leaf-spot, blight, rust or sunburn. It attacks the vines at any stage of their growth. Small reddish-purple spots appear, which gradually enlarge until they are from one-eighth to one-fourth inch in diameter. When numerous they coalesce and the more or less regular shape is lost. The color also changes as they enlarge, the center becoming first reddish-brown and then whitish or grayish, while the edge remains a deep purple, shading off to the healthy green of the leaf.

It appears at any time during the growing season, an early infestation influencing the crop the same season; a late one the succeeding crops. The leaves, calyx and stems of the fruit are attacked, the former turning brown and dry, and the latter shriveling up because of the interference with the plant tissues. Heat and moisture favor its development, plants on heavy, wet land showing a marked increase of spotting. On the other hand, dry seasons do not seriously retard its development. In the fall, small black points appear in the ashy portion of the spots. There are multitudes of so-called resting-spores which perpetuate the disease from season to season.

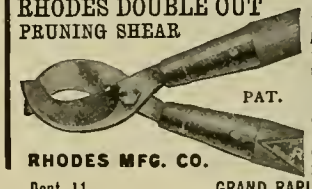
Remedies: Remove and burn any dis-

AN abundance of fruit of highest quality, finely colored and flavored, is the direct result of supplying a complete fertilizer containing from 7 to 12 per cent. of POTASH to the tree, vine or bush.

"Plant Food" is a book well worth a place in the library of any fruit grower. We will gladly mail it to all applicants.

GERMAN KALI WORKS
93 Nassau Street, New York

RHODES DOUBLE CUT PRUNING SHEAR



Cuts from both sides of limb and does not bruise the bark. We pay Express charges on all orders. Write for circular and prices.

RHODES MFG. CO.
Dept. 11 GRAND RAPIDS, MICH.

AGENTS WANTED. Profitable work introducing our worthy goods into your own community. Employ all or part time selling monuments. Special inducements. Do your friends a favor and make some money. Investigate this liberal offer at once. Make the winter count.
MOORE MONUMENT CO., Dept. 54, Sterling, Ill.

RAW FURS ONE MILLION WANTED
My European contracts put me in position to pay top prices. Write for my special quotations. Address
A. E. BURKHARDT, International Fur Merchant C 53 Cincinnati, Ohio

NEW ZEALAND
Is the Land for the Traveler, the Health Seeker, the Home Seeker

A Beautiful Fertile Country Down in the South Seas
Sixteen Days' Steam from San Francisco

THERE is room in New Zealand for Thousands of Settlers. Rich Soil. Temperate Climate. Abundance of Water—**The Ideal Land for the Farmer.**

A pleasant country winter and Summer. No snowbound winters. No droughts.

As an **Agricultural, Meat-raising and Dairying Country** New Zealand has no superior. Its Farm Produce commands the Highest Prices on the world's markets.

Cheap Transit for Farmer's Produce, Government owned railways.

Government land is obtainable on easy terms; principal form of tenure, long leasehold. **Government loans to new settlers at low rate of interest.**

Government and municipal ownership of public utilities. Government telegraphs, insurance, savings banks, government trust offices, etc., etc. Government Sanatoria and Hot Mineral Water SPAS.

New Zealand's death rate is the **LOWEST** in the world. Its wealth per head of population is the **HIGHEST** in the world.

A country of strange and beautiful scenery. Marvelous geyserlands. Hot Lakes. Lovely Rivers. Magnificent Mountain Lakes. Grand Alpine Scenery. A Splendid resort for Americans who wish to escape the winters of North America.

When it is **Winter** in the United States it is **Summer** in New Zealand. Summer time is cool and pleasant for travel in New Zealand.

Excellent trout fishing and deer stalking. New Zealand's fishing waters, thousands of miles in extent, carry the largest trout known to anglers.

NOW is the time to visit this new and interesting country. The **New Zealand International Exhibition**, in the city of Christchurch, is now open and will remain open until April, 1907. Good hotels. Cheap transportation rates.

Mail steamers from San Francisco to Aukland, New Zealand, **every three weeks.**

Write for information and free literature concerning the Colony. Address

T. E. DONNE, *Superintendent Government Department of Tourist and Health Resorts*
WELLINGTON, NEW ZEALAND

eased leaves when setting out the plants.

A thorough spraying with Bordeaux mixture (4-4-50) or ammoniacal solution of copper carbonate (three ounces to twenty gallons of water) just before the blossoms open and another after the fruit is harvested will effectually protect the plants. Newly set plants should have three or four applications the first season after they are set out.

If spraying is neglected the best scheme is to burn over the field after harvesting, a process which will be explained later.

Some varieties show a greater degree of resistance than others. These should be given the preference when setting out new beds.

By resetting the beds every year on well-drained, deep land the blight effectually may be controlled.

This leaf-spot is not the only one which attacks the strawberry, but will serve as an illustration for all. Most of the others, such as *Phyllostica Fragaricola*, *Septoria Aciculosa*, *Ascochyta Fragaria*, etc., have practically the same characteristics, appearing identical to the naked eye. They are not nearly as common, however, and all yield to the same treatment.

The Powdery Mildew (*Sphærotheca Castagnei*) occurs during periods of damp, cloudy weather. It attacks the leaves, stems, green and ripe fruit. The leaves curl as if suffering from lack of water, and the fruit has a disagreeable, musty taste. At times it causes a complete loss of the crop.

The disease easily is recognized by its white, cobwebby, powdery appearance on the upper surfaces of the leaves. The powdery appearance is imparted by numberless spores which are freely given off in July and August. Later in the season the same mycelium (threads) produce the black spore which survives the winter. It is this fungus commonly seen on dandelions and hops.

Remedies: If it is not noticed until the ripe fruit is attacked it is too late to check it. An early application of Bordeaux mixture or any spray containing a copper fungicide will keep it down. If spraying is made a regular part of the routine work, as it should be, there need be no fear of mildew.

Sulphide of potassium, one-fourth ounce to one gallon of water, is helpful.

Some varieties are more susceptible than others, and these should be left out of the planting list.

Other fungous diseases are the blight, a *Micrococus*, which has done some damage in Massachusetts, and a leaf-spot, an *Aposphæria*, which has been recorded in New Jersey. These are merely of local interest, however.

Fungous diseases are really minute parasitic plants of a very low order, possessing no chloropyl, (green coloring matter) and propagating (usually) by single-celled spores, corresponding to the seeds in higher plants. The spores are conveyed by currents of air, water, moving objects, by birds and insects, and in a multitude of ways, to the leaves, or the part of the plant they infest. Here they germinate in any moisture that may be present and send out long filaments (the mycelium) through which they gain their food. Most of them form two kinds of spores, one which multiplies the fungus during the summer, and another which is formed in the fall and continues the disease over to another season.

As most of the fungi gain their subsistence from the inside of the leaf, it is a great deal easier to prevent a disease than to cure it. For this reason a good coating of Bordeaux mixture kept on the leaves is cheaper in the end than to let the vines go until badly diseased, when they must be pulled up, burned or plowed under.

It will be seen that two methods of procedure are generally advised in combating the strawberry diseases. One is thorough spraying, as a preventive, to which Paris green or Disparene may be added to give it an insecticidal value. The other is burning. After the fruit is harvested the tops are mowed and left to dry for a few days, when they are ignited and the whole field is burnt over. A little straw on the bare places will facilitate matters. Not only will this burning kill the spores, but it will destroy a large number of injurious insects. It must be borne in mind that spraying gives imme-

Grand FREE Millwork Catalogue

Saves 50 Per Cent on Windows, Doors and Building Material

5000 Bargains—Quality Guaranteed

WE GUARANTEE SAFE DELIVERY ANYWHERE

This High Grade Painted Door, Dealer's Price $2.00, at 80c

Don't think of **doing** any **repair work** or **building**, whether you are a Home Owner, Carpenter, Contractor or Builder, until you have sent a Postal Card for our Free Millwork Catalogue. It is an authority on millwork styles.

We sell all our millwork products of the Largest Mill in America **only direct to you** and—

You Save HALF, whether You Order $5.00 Worth or $10,000 Worth

The 5000 bargains we offer will cost you 50 per cent less than your Local Dealer would charge, freight included. We **guarantee** that, and **safe delivery** anywhere in the United States.

That is no careless, hasty statement. We **know** we can save **you** 50 per cent, wherever you live, or whatever you need in millwork. We have done that for our customers in every state in the Union and Canada. We are doing it every day. We fill all orders promptly from our immense stock. Look at these two bargains here illustrated. A High Grade Painted Door that any dealer would charge you $2 for—we sell you for 80 cents. And also all barn or house materials equally low priced. Sold only direct to you.

This 4-Light Storm Window, Dealer's Price $1.50, at . . 60c

You know, yourself, what such doors and storm sash cost you at home. And our goods are all of High Standard, guaranteed of the official grade adopted by the Sash, Door & Blind Manufacturers' Association of the Northwest. Remember that we can afford to make these low prices because of our enormous output and because we save expense by selling only

Direct to Home Owners, Carpenters, Contractors and Builders

You are perfectly safe in ordering direct from our Free Catalogue. Your local banker or any banker in Davenport, our home, will tell you of our responsibility.

We operate the **largest** mill in the world—163,000 feet of floor space (four acres)—have been in business since 1865—own our timber lands, sawmills and lumber yards. We carry a large stock and can therefore ship promptly. We have no traveling men—sell only for cash. We are the **only** large manufacturers of sash, doors and blinds selling direct to the consumer. Our prices will astonish you. Don't buy anything in our line until you get our catalogue, **the grandest woodwork catalogue published.** It is FREE—write for it today. Address

GORDON VAN TINE & CO., Station , DAVENPORT, IA.

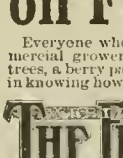
Make More Money on Fruit Crops

Everyone who grows fruit, whether a large commercial grower, or one who has only a few fruit trees, a berry patch or a garden, should be interested in knowing how to get the most profit from his crops.

THE FRUIT-GROWER

ST. JOSEPH, MISSOURI

is the only magazine in America which is devoted exclusively to the interests of those who grow fruit. It is handsomely illustrated, and contains from 36 to 76 pages each month. It tells all about fruit of all kinds—and nothing but fruit—how to market, how to pack, cultivate, spray, prune, how to MAKE MORE MONEY from your crops. Sample copy will be sent free. Regular price is a dollar a year, and each subscriber is entitled to a choice of any one of our series of ten "Brother Jonathan" Fruit Books—the best in existence.



Three Months Free

We are so confident The Fruit-Grower will please you that we will send it to you three months absolutely free if you will mention paper in which you saw this advertisement. If, after three months, you like the paper, we will make you a special offer for twelve months more. If you don't like it, notify us and we will take your name off the list. The three months will cost you nothing. We offer Cash Prizes for new subscribers—write for particulars. Write your name and address in blanks below and mail to

Fruit-Grower Co., Box B, St. Joseph, Mo.

FRUIT-GROWER CO., ST. JOSEPH, MO.

I accept your FREE three month's trial offer. At end of three months I will either pay for a year's subscription or notify you to stop paper. In either event there is to be NO charge for the three month's trial.

Name_____

Route or P. O. Box Number_____

Town_____ State_____

850,000 GRAPE VINES

69 Varieties. Also Small Fruits, Trees, &c. Best rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. LEWIS ROESCH, FREDONIA, N.Y.

diate and future results, while burning helps future crops only! It is of no benefit the year it is done.

A great deal of infestation comes from old wornout beds that are left to themselves. Such pest spots should be plowed under, pulled up or otherwise destroyed.

Another good plan is to grow strawberries on land continually cultivated in connection with other crops, making short rotations.

Anderson, Calif.

We are very glad to have this article from Prof. Adams because it is not only scientifically correct, but is told in so practical a way as to make it possible for the layman to comprehend and follow. Mr. Adams is correct when he says that there are only a few diseases that attack the strawberry plant, and all strawberry growers must put forth their best efforts to maintain this condition, and if we carry out Mr. Adam's suggestions by spraying and burning over the fruiting bed we make it all the more difficult for both disease and insect enemies of the strawberry to secure a foothold. Especially should his suggestions concerning the taking of old plants from wornout beds be religiously followed. We hope that every reader of The Strawberry will carefully read this article, study well the lessons it teaches and follow them to the letter.

Mr. Adams mentions that some varieties are more sensitive to fungous attacks than others, which is true. But no matter how susceptible a variety may be to these influences, some plants of that variety have tougher leaf-tissues than others, and by carrying forward a series of selections, using these disease-resisting plants, the breeder eventually will produce a strain of plants of that variety from which that tendency will be practically eliminated. This is a feature of plant improvement upon the importance of which we lay much emphasis.—Editor The Strawberry.

THE Christmas chimes are pealing, softly pealing; the joyous sounds are ringing, ever louder and clearer, ever nearer and nearer, like a sweet-toned benediction falling on the ear. Glad ringers are pulling the ropes, and in one grand swell of melody, Christmas, with its old and yet ever new and marvelous mysteries, bursts triumphantly upon the world once more.—Washington Irving.

ONE careless, slothful, "too-much-trouble-to-do-it" fellow can ruin the good name of an entire strawberry district—if you let him sell his fruit with yours! There's the point, and don't lose sight of it. Southern California was almost ruined some years ago because a few indifferent orange growers were permitted to ship their fruit along with the careful and the painstaking, thus lowering the grade of all the fruit shipped. Organization effectually put a stop to that by demanding uniform grades. Today a box of California oranges is made up of fruit uniform in size and as nearly uniform in quality as human judgment and skill can achieve. The grades are so perfect that a schedule of prices exactly meets the variations. This is the result of organization. Now if a man is lazy or careless enough to grow "thirds"—all right! He gets in the market just what's coming to him. And so does the man who grows the A No. 1 kind!

HIGHEST GRADE BY SPECIAL TEST
TRUE TEMPER
FARM-AND-GARDEN HAND-TOOLS
MANUFACTURED BY AMERICAN FORK & HOE CO. CLEVELAND, OHIO, U.S.A.
The best tools you have ever bought
Same prices you have always paid
That's what the "True Temper" Label on your Farm and Garden Hand-Tools Stands for
STUDY it well. Because the better you know "True Temper," the more you will appreciate how much it means to you.
The Forks, Hoes and Rakes we manufacture have long been famous for their excellence. Some of our brands are nearly three-quarters of a century old.
But we also make many other Hand-Tools of valuable special-purpose features which are not generally known.
Moreover, farmers and gardeners need them and are anxious to have them, when their time, labor and money saving advantages are known and appreciated.
Ask Your Dealer For TRUE TEMPER Tools
For that reason we adopted advertising to tell you about our hundreds of Farm and Garden Hand-Tools.
* * *
But first the combined knowledge and skill of all our manufacturers were called into council, and the best process for making each kind of tool was formulated and adopted. In fitting testimony of the high quality represented by this standard process, it was named "True Temper."
All tools must pass tests and inspections, and only those which prove true in quality, construction, "hang" and temper are labeled "True Temper."
That is why "you know a tool is just right when it is "True Temper."
* * *
Every farmer and gardener knows the importance of the "hang" of a Hand-Tool. If it is correct, the tool helps in the work. If it is awkward, the tool hinders. "True Temper" tools are the kind that help.
"True Temper" tools also have those rare qualities of toughness and elasticity of temper which are so much sought after by makers and users of tools.
* * *
The line includes Forks, Hoes, Rakes, Hooks, Weeders, Cultivators, Beet Tools, Floral Tools—every desirable pattern of Hand-Tools.
Write for our FREE BOOK, "Tools and Their Uses." It shows hundreds of special-purpose tools and tells you how to save time, labor and money. Just drop us a postal today.
American Fork & Hoe Company,
145 American Trust Bldg. Cleveland, Ohio

STEEL ROOFING
PER 100 SQUARE FEET
$1.50
FIRE WATER AND LIGHTNING PROOF
Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding. Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new. $1.50 is our price for our No. 15 grade of Flat Semi-Hardened steel roofing and siding, each sheet 24 ins. wide and 24 ins. long. Our price on the corrugated, like illustration, sheets 22 ins. wide x 24 ins. long, $1.75. At 25c per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, per square, $2.00. Fine Steel Beaded Ceiling, per square, $2.00. Can also furnish standing seam or "V" crimped Roofing.
WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO
except Okla., Tex. and Ind. Ter. Quotations to other points on application
Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this ad C. O. D., with privilege of examination if you will send us 25% of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit.
Ask for Catalog No. WE 733. Lowest prices on Roofing, Eave Trough, Wire, Pipe, Fencing, Plumbings, Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales.
CHICAGO HOUSE WRECKING CO., 35TH AND IRON STS., CHICAGO

Lessons From the Experiences of 1906

By J. B. Graves

THE YEAR 1906 has been a notable one. A few of my own experiences in growing strawberries will be the subject of this article. My first bitter experience was with frost. Spring opened slowly—a little late. Yet when it did come it soon warmed to the work of its mission and had all nature in a hurry; on a dead run, so to speak. My plants wintered well, and, being thrifty, were soon loaded with bud and bloom. The flowers were noticeable for their great size and abundant pollen. I think I never saw a greater profusion of blossoms. Nature seemed to be doing her very best. The prospect for a bumper crop was certainly grand. For many days I walked beside the snowy rows charmed by the beautiful sight, enthused at the splendid promise of reward, and like a frisky colt stepped high in my delight and whistled out my effervescent joy.

But heavens and earth! what's the matter now! All creation has had a spasm. The temperature has fallen to 28 degrees and my hopes to nine miles below zero. On the morning of the 9th of May ice in my water trough was one-fourth of an inch thick, leaves and flowers on the strawberry plants were frozen stiff, berries as large as chestnuts were as hard as ice, and the foliage of sassafras, hickory and oak was killed as by fire. I suffered a complete change of heart. My high stepping was changed to wabbling, and my whistling for joy to groaning in despair. I felt inexpressibly bad.

The frost was quite extensive. It reached to many states. It greatly reduced output of berries. It was partial in its treatment of the growers. Some growers' fields it ruined entirely, some it destroyed partly, and some it hurt not at all. All these differences were seen in the same locality.

Frost will come, and it is beyond our control. However, we sometimes may circumvent its ravages by a thoughtful expedient. Three years ago we had a harder freeze when strawberries were in bloom than we had in 1906, and one of our large growers saved twenty acres by raking the mulching out of the middles and piling it upon the rows. That field escaped damage almost entirely.

But the frost of 1906 was not without some compensation. It cut down the yield of berries, but at the same time it put up the price of the product and enabled the growers to get more clear money for their crop than they would have done if the frost had not come. If there had been no frost the plants would have borne a big crop of little berries. It would have been difficult to get them all picked. The market would have been glutted with small, unsalable fruit. Prices of such offerings would have been low. Receipts would have been small, and the season's results would have been very unsatisfactory. As it was, the frost thinned our fruit, thickened the price, trimmed down our labor and expense, and turned us out a handsome profit. I felt better at the end of the season when I found I had made more than I did the previous year when I handled a much heavier harvest under more trying circumstances. Then I whistled some more. Hereafter when frost comes I shall endeavor to take it philosophically and sleep soundly.

Another trying experience was rain. The early part of the year was quite seasonable. The crops were put in without much hindrance and were cultivated in good shape for a time. I set a new field of strawberries in good time and planted them in rows forty-two by thirty inches. I cultivated them both ways and had them clean as could be. I kept them that way until cross cultivation ceased and the runners were permitted to set. There was no trouble until the row was pretty well filled with plants. It was not until the picking season was over that the troublesome rains came. Then for many days we had continuous rains and some were very heavy. The ground was kept too wet to work and the grass and weeds grew amazingly. A part of my new bed I succeeded in working out and a part I didn't. The rains run me out.

But while I could not get in my work the crab grass did get in its work. By the time the ground got dry enough to work, the crab grass had become so thick and strong that to hoe it out would do more serious damage to the strawberries than to leave it in, so I reluctantly left it in, but kept the cultivators going between the rows. When I saw the crab grass had about attained its growth I put the mower in and clipped it just above the strawberries and let it lie on the row. In a few days it was cured and dry and the strawberries made their way up through the fine hay. At the present writing those plants are not so thick nor so vigorous as those in the clean field, but they give promise of producing a pretty good crop next year. A neighbor grower of mine was caught last year as I have been this and mowed his field as I mowed mine, and this year in spite of the frost he harvested an excellent crop from that grass-covered field.

A very remarkable case in this locality was of a field so thickly covered with crab grass last fall that scarcely a strawberry plant could be seen. Last spring the grower feared the plants never would find their way up through the grass. So he raked it off the rows and tramped it down between them. That field was one of the best in this locality this year and produced some of the earliest and finest berries shipped from this point; and Neosho is celebrated for its great strawberries.

Now I do not believe in that method of cultivation, nor do I recommend it, by any manner of means; but it is a little comforting to know that if the rain is against you crab grass is for you and seeks to aid you by mulching your field free of charge! Frost and rain, both good friends of ours, frequently have despoiled our fields, given us many backaches and heartaches and behaved themselves like vicious enemies, seeking to do us an irreparable injury.

Then I had some experience with white clover. This plant in a strawberry patch is an unmitigated evil. In a cow pasture

TAKING UP PLANTS FROM PROPAGATING BED FOR SETTING IN THE FRUITING BED

A new way of selling Seeds

My new 1907 catalogue of vegetable and flower seeds is different from anything I ever saw before. It shows by true photographs exactly what has been grown from my seeds, and tells you exactly how to get the same results.

I have a unique way of selling seeds. By using

"Stokes' Standards"

which I have chosen from the world's best—old and new—you can have as successful a garden as if you had specialized in each vegetable for years. They represent 25 years of practical experience and are the result of thousands of experiments at my Floracroft Trial Grounds.

You cannot afford to overlook this. Send today for my catalogue and my new way of selling. Write me about your garden problems. I am sure I can help you.

STOKES' SEED STORE
219 Market Street, Philadelphia
WALTER P. STOKES, of the late firm of Johnson & Stokes.

STRAWBERRIES

big, red and luscious are grown from ALLEN'S choice vigorous strawberry plants. None better. Good Luck, Chesapeake, Virginia and Carnival, new Glen Mary, Haverland, Dunlap, Marshall, Klondike, Gandy, Buhach, Climax, and all best standard sorts, 90 varieties. Prices right. DEWBERRIES, Austins, Lucretia, and Premo. I have big stock and they are fine. Also Raspberry, Currant and Gooseberry plants, and Grape vines. In SEEDS I have the leading varieties for field and garden. My 1907 supply of Peas, Beans, Watermelon, Cantaloupe, and Cucumber seeds is very choice. Millions of vegetable plants in season. My 60 page Catalogue for 1907 tells about lots of good things for the farm and garden and where to get them. IT'S FREE. Send name and address on postal to-day to

W. F. ALLEN,
Dept. 58, Salisbury, Maryland

SWEDISH OATS

"Probably the best American Oat"
U. S. Dept. of Agriculture.
"Most satisfactory of all varieties."
Wis. Agr. Ex. Station.
"Best we can find."
So. Dak. Agr. Ex. Station.

No better authorities than the above. They are disinterested too. Swedish outyields all others; is heaviest, plumpest and whitest. Season, early; straw, very stiff; best for clay soils. Get started this year. We are headquarters. Immense stock, pure seed.

Send postal today for 88-Page Catalog Oats, Corn, Potatoes, Garden Seeds, etc.

L. L. OLDS SEED CO., Drawer N, Clinton, Wis

it is a useful forage plant and is possessed of considerable value as a soil restorer, but in a strawberry patch it is the most noxious, the most pestiferous, the most uncontrollable weed with which I ever contended. Botanically considered, it is a biennial. Practically considered, it is a millenial. If it gets a start in land naturally adapted to its growth it will eventually take full possession and put you out of business in spite of fate. For three years "I fought a good fight" with it in one of my fields and at times I flattered myself that I had control of it. I plowed it out with cultivator and shovel. I dug it out with pick and hoe. I pulled it out with hook and hand. Yet in spite of the searching work with hook and hoe and hand many short piece-roots were left hidden in the soil. These soon developed into new plants and filled the land with multitudes of vigorous forms, miraculously endowed with everlasting life! At the end of the three years I confessed myself fairly and fully beaten, for in spots my berry field looked like a clover meadow. Disgusted, I put in the plow and turned under the sod, root and branch, and in my wrath harrowed the overturned roots until they were torn and broken into a thousand pieces. Then I planted the place to cowpeas, cultivating them with plow and harrow, still "having it in" for the clover, and shaded it so it has not, so far, shown its hydra head. I have been contending with the same evil on another field, and, during the summer, with some hope of success, for there was little sign of its presence among the cleaned-out plants. But when fall came and cultivation ceased the white-freckled leaves smilingly appeared, seemingly to mock at my endeavor and calamity. In case this seeming victory is turned into inglorious defeat, I shall at once sacrifice that field to the plow, and ever after when white clover appears simply shall spike my guns and leave. It is an anarchist. It is a socialist. It is an imperialist. Such is my feeling after a few years of unpleasant experience with a plant that is a splendid illustration of the presence, the persistence and the power of evil!

I will mention but one other experience—an experience with a good method of renewing an old berry field. After the picking season was over I mowed the fields, piled the dry leaves and mulch upon the rows and burned them off. With double shovels I cultivated twice between the rows. Then taking a single narrow shovel I ran it down the row, plowing in the center of the row and dividing it into two. This tore out many of the old mother plants. After this I took a one-horse turning-plow and laid off new rows across the old ones at right angles, making the rows three and one-half feet apart. They were about eight inches wide. The plants in them were in blocks at the intersection of the two rows. So you see the plants were heroically thinned out. These rows I treated the same as newly set ones.

On good rich ground this method of renewing is all right, and good rows can be produced. Most of the cultivating can be done with horse power. Not much hoeing is necessary. The cost of renewing in this way is not great. By changing the direction of your rows you keep your field level. You have no high ridges for your plants to grow upon. The new plants will have loose, freshly plowed earth to set upon instead of hard, uncultivated ground. Such a field will resist drouth the best. By this method you get rid of most of the old plants. Your row is nearly a new one year by year. By plowing under so many of the old plants you are filling the soil with humus. You enrich your land. It cultivates easily and is loose. It conserves the moisture. It absorbs heat better. It ripens fruit earlier

SPRAYING TIME

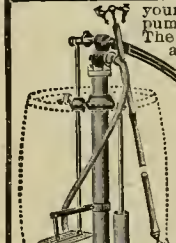
Why carry loads of water to spray? Do the work more effectually, quickly and easily by applying the insect poison direct with the

ACME POWDER GUN

It puts the powder right to the spot—under and all about the leaves and stems. Bugs, worms and insects can't escape; and just a puff to the plant does the business. If your dealer hasn't it, send $1.00 and his name—we will ship Powder Gun, *charges paid*. Handles any kind of powder insecticide. Ask for little book for particulars, sent free.

POTATO IMPLEMENT COMPANY,
Box 531 Traverse City, Michigan.

SPRAYING



your fruit with a good spray pump means dollars to you. The Eclipse earns big profits and lasts for years. We invented the

ECLIPSE SPRAY PUMP

after experimenting for years in our own orchards with the common sprayers. We have it illustrated in our 40-page catalog—send for it to-day—it's brimful of useful and interesting reading for the gardener and fruitman.

MORRILL & MORLEY
Benton Harbor, Mich.

POWER SPRAYERS

The most complete line built. 16 styles—meet every possible requirement. All kinds of spraying accessories. Send for catalogue and prices, stating your requirements. Mention this paper.

Wallace Machinery Company
CHAMPAIGN, ILLINOIS

The "Kant-Klog" Sprayers

A slight pressure of the thumb starts the spray.

Something New. Gets twice the results with same labor and fluid. Flat or round, fine or coarse sprays from same nozzle. Ten styles. For trees, vines, vegetables, whitewashing, etc. Agents wanted. Booklets free.

Rochester Spray Pump Co.,
12 East Ave., Rochester, N. Y.

and faster. If the soil is rich and can be kept so, and if it is free of noxious seeds, by this method of renewing, a field of strawberries can be perpetuated almost indefinitely.

I fell upon this plan in my effort to exterminate white clover. While I failed to eradicate the odious legume I found the plan worked excellently in the extirpation of every other weed. It is truly a good plan on good ground.

But on thin land I found this treatment too drastic. On such land the old plants have not produced enough young ones and the rows are too light. No doubt the plants in those thin rows will have a good chance for spring development, if unhindered, and for the production of fine fruit; but the harvest will not be plenteous. Besides, where the plants do not cover the ground weeds and grass, those silent disturbers of the peace, will have a chance to come in and, like the thorns in the parable, choke the plants until they can bring no fruit to perfection. On thin land this method should not be employed. In fact, strawberries should not be planted on that kind of soil at all. Better sow it to clover, plant it to cowpeas or cover it knee deep with barnyard manure and spend two or three years in making it ready.

While the half has not been told of my experiences in 1906 time fails, and space forbids that I should say more.

Neosho, Mo,

OUR correspondent's references to crab grass lead us to mention our own experience with this weed. In 1905 we had 100 acres in strawberries, and in July, just when runners were forming in myriad numbers, rain began to fall and continued for from ten to twelve days. The ground was fairly covered with water during this time. The crab grass took advantage of these conditions and multiplied so rapidly as to threaten the life of the plants. We could neither cultivate or hoe, but the foreman was given orders to station his men in a building on the farm so situated that they could make use of every minute of time between showers. In this way the entire hundred acres were gone over, a force of about thirty men being employed pulling out the crab grass by hand and throwing it into the spaces between the rows. As soon as the rain ceased, cultivators and hoes were started, and when autumn came it found the fields as free from grass and weeds as a parlor floor. We would emphasize the point that it is of utmost importance that crab grass be kept out of the fields. There is no doubt that this weed feeds like a glutton on the plant food in the soil, thus taking it from the strawberry plants and weakening their fruit-producing powers.

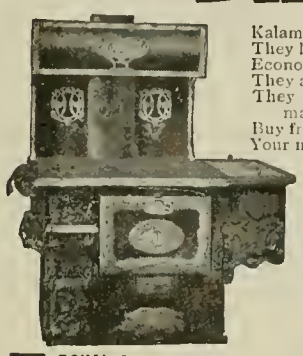
We also have had troubles of our own with white clover, but by frequent hoeings and pulling it out by the roots with the hand, we have kept our fields free from it.

Mr. Graves remarks that upon rich soil strawberry plants may be encouraged to perpetuate themselves almost indefinitely. Possibly by his method it might be done for several years, but there are three prime reasons why this plan should not be generally followed—first, the effect upon the soil of continuous cropping is to fill it with toxic matter, resulting in the steady depreciation of the stamina of the plants, a fact which makes frequent rotation absolutely essential; second, the weakening of the plant results in deterioration of the fruit, both in quantity and quality; third, an old bed is a breeding place for insects and fungous spores.

Mr. Graves is an extensive grower of strawberries, and his article is of high value and will be of great benefit to our readers. It is such practical experiences, published for the guidance of others, that lead to progress all along the line.

OAK STOVE HEATER, For All Kinds of Fuel.

"A Kalamazoo Direct to You"



ROYAL STEEL RANGE For All Kinds of Fuel.

Kalamazoos are fuel savers,—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality,—
They are easily operated and quickly set up and made ready for business,—
Buy from the actual manufacturer,—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices.

If you think $5, or $10, or $40, worth saving

Send Postal for Catalogue No. 348

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 267 styles and sizes for all kinds of fuel. Write now. Sold on 360 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.

Oven Thermometer

J. R. Naylor, a practical farmer who invented this great time-saving 2-in-1 Harrow.

My 2-in-1 Harrow Makes a Perfect Seed Bed in HALF THE TIME

BECAUSE it does the work of both a Spring Tooth and a Spike Tooth Harrow at one time and at *one operation.*

Because, you see, my harrow is BOTH HARROWS IN ONE.

If you have to go over your field *four* times now—you'll only have to go over it *twice* with my harrow.

If your ground is in such shape that you now go over it twice, then only *once over* will give you an even better seed bed when you use my harrow, and you can follow right along with a planter.

That means if it rains overnight you haven't got your work to do over again.

On newly broken sod you can work across the furrows (instead of with them) and not pull up a single sod or choke the teeth. You can prepare new ground with my harrow in a THIRD the time you can working the old way—using two harrows separately.

One lever instantly adjusts my harrow so you can use the spring teeth alone—or the spike teeth alone—or both together—or you can throw all the teeth up out of the way, so that the frame will slide along the ground like a stone-boat.

When a live farmer knows about my harrow he wants it. I can name, off-hand, twenty places near my farm in Cass Co., Mich., where you'll find good spring teeth and spike teeth harrows out in the barnyard with grass growing up around them.

The farmers have thrown them away and are using my harrow alone—and they're MAKING MONEY by doing it.

HOW I CAME TO INVENT THE 2-IN-1 HARROW.

I always had the same trouble you've had in getting my ground ready.

It seemed like there ought to be some way around it. So my brother and I got busy one winter AND SOLVED THE PROBLEM.

This is the way we figured:

A spring tooth harrow wants to keep digging in all the time. That keeps the frame pressed hard on the ground and it's a tough pull on the horses.

A spike tooth wants to keep jumping up all the time, you have to put some heft on the top to keep it down. The horses have to drag the heft as well as the harrow.

So we made a 2-in-1 harrow—spring and spike teeth together. That season we used it on our farm and it worked just as we figured it would.

The spikes kept the springs from digging in too far, and the dig of the springs kept the spikes down to their work—and once over (except on extra bad ground) left a smooth, even, perfect seed bed.

That's why my 2-in-1 Harrow was easier on the horses than either a spring tooth or spike tooth alone and SAVED OVER HALF OUR TIME getting ready for planting.

The best proof of how really good my harrow is lies in the actual fact that every harrow I have sold has since sold from two to five more.

My Harrow is such a really wonderful thing and such a TIME and MONEY saver for the farmer that I expect each harrow I place will keep on selling others in the neighborhood. So I have decided to make a

SPECIAL CONFIDENTIAL PRICE

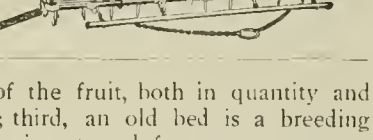
to the first man in a locality who writes me—the confidential price will be AWAY DOWN, too.

Don't even consider buying a Harrow till you get my confidential Introduction Price.

Write quick to

J. R. NAYLOR,
Naylor Mfg. Co., 4 Spring Av., LaGrange, Ill.
(Not Incorporated)

From Factory to Farm



THE annual Poultry, Pigeon and Pet-Stock Show to be held in Chicago January 23-30, 1907, promises to be an improvement on any of the shows here-

O. L. Chase
St. Louis, Mo.

I Am the Paint Man

2 Full Gallons Free to Try—6 Months Time to Pay

I Guarantee Freight Charges.

I AM the paint man. I have a *new* way of manufacturing and selling paints. It's unique—*it's better*. It revolutionized the paint business of this country last year.

Before my plan was invented paint was sold in two ways — either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The chemical action in ready-mixed paint, when standing in oil, eats the life out of the oil. The *oil* is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in another can, I ship the pure, old process Linseed Oil—the kind you used to buy years ago. Any child can stir them together.

I sell my paint direct from my factory to user you pay no dealer or middleman profits.

My $100.00 Cash Guarantee

I guarantee, under $100 Cash Forfeit, that the paint I am offering you does not contain water, benzine, whiting, or barytes—and that my Oilo is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever.

I guarantee the freight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use *two full gallons*—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, *you can return* the remainder of your order and the two gallons will not cost you one *penny*.

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on *six months' time*, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

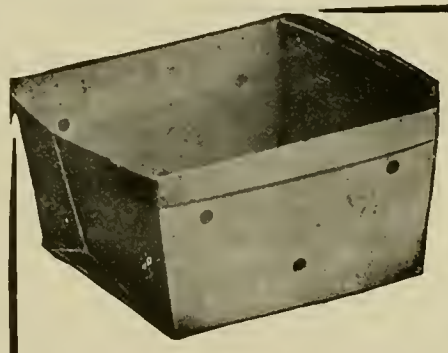
Back of my paint stands my Eight-Year officially signed, iron-clad Guarantee.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo. I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8-year guarantee.

O. L. CHASE, *The Paint Man.*
Dept. 50 St. Louis, Mo.

NOTE—My 8 Year Guarantee Backed by $50,000 Bond.

tofore held under the management of the National Fanciers' and Breeders' Association. The exhibits of stock, incubators, breeders, appliances, foods, everything pertaining to the poultry, pigeon and pet-stock industry, will be more wonderful than ever. Plans now are being perfected to make the exhibition, whether from the viewpoint of the exhibitor, visitor or management, better than ever before. Premium lists giving all necessary information will be issued about December 15. Strawberry folk interested in poultry should write to the secretary, Fred L. Kimmey, 325 Dearborn street, Chicago, Ill., and secure this list.



The BASKET with the RIM

That is the distinguishing feature of the

WAX LINED PAPER BERRY BASKET

The height of Clean, Odorless, Taintless, Pure and Perfect Basket Perfection

IF YOU ARE A BERRY GROWER you want our Basket and we want your name

MULLEN BROS. PAPER COMPANY

Send for FREE Sample and Catalogue of this 20th Century Basket Dept. B St. Joseph, Mich.

The Strawberry-Raspberry

THERE has been some discussion of what has been called the "strawberry-raspberry." In view of the interest this discussion has evoked, the following from a correspondent to Farm and Fireside will be of value to our readers:

"The plant sent out under the name of strawberry-raspberry, is not a hybrid plant at all, and the name is a misnomer. This plant comes to us from Japan. It is an herbaceous plant, and while it produces very brilliantly colored large fruit, this is regarded as of little value for commercial purposes. I have occasionally seen parties who used it for canning purposes and speak well of it, but in my personal experience it has been of no account commercially. So far as propagating itself is concerned, I have been most troubled about preventing its propagating itself and spreading all over the garden. It produces a large number of suckers each year, which grow to the height of two or three feet the first season.

"It would seem as though there ought to be a good field for this class of raspberries—which die to the ground in winter—and at one time I was very enthusiastic over some of them. About seven years ago I received from the United States Government a plant of similar character to the strawberry-raspberry under the name of *Rubus xanthocarpus* and was told that the thing to do was to propagate it as fast as possible, as it was valuable. I gave it the best of cultivation and it produced an enormous number of suckers, growing to the height of perhaps eighteen inches. I grew it for six years, and in all that time failed to get a single fruit. An acquaintance of mine to whom I sent it had a similar experience and dug it out, but some of it had spread to the headlands of his nursery where the horses were turned on it. On this land he one year had a good crop of large yellow fruit fairly good in quality. The way the plant propagates in the soil reminds me very much of the Canada thistle, and it is got rid of with considerable difficulty. It is possible that we shall get something from Asia yet in this line of value commercially, but thus far nothing has appeared." This will be of interest to several inquiring Strawberry readers.

FREE SEEDS
WEIGHT 7¾ LBS.
LARGEST TOMATO EVER GROWN
FREE SEEDS FOR EVERYBODY
A Postal request will Bring You by return mail a packet of this Mammoth New Tomato Seed FREE, also our Big 1907 Garden Annual. It describes and illustrates our New 383 Bus-per-acre Corn "NICHOLS YELLOW QUEEN." We offer $50. for The Largest Ear Grown this Season. Write Today.

ST. LOUIS SEED COMPANY
848-850 N. Fourth St., ST. LOUIS, MO.

SEEDS THAT GROW

Best quality Garden, Flower and Farm Seeds, Alfalfa, Clover, Seed Potatoes. We will send free with catalogue a pkt. of new lettuce seed "May King" the best head lettuce ever introduced. If you ask for it. Write us to-day. Also have full line of Nursery Stock, Roses, Plants and Bulbs.

GERMAN NURSERIES & SEED HOUSE
CARL SONDEREGGER, Prop.
GERMAN NURSERIES, BEATRICE, Box 101, Nebraska.

BERRY PLANTS

We are headquarters for plants of the new "Oswego" strawberry and 50 other best new and old varieties. Also the "Plum Farmer" raspberry and other desirable kinds of Raspberries, Blackberries and other Fruit Plants, etc. 23 years experience. Highest awards at World's Fair. We invite correspondence. Catalog free.

L. J. Farmer, Box 732, Pulaski, N. Y.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

THE NEW YEAR opens most auspiciously for the Correspondence School, and we welcome to this, its first session for 1907, not only the splendid host that was with us throughout the year just ended, but another host of new members, apparently quite as enthusiastic as those we have come to know and appreciate so highly through the experiences of the past twelvemonth.

Our Christmas was made a merry one by the receipt of letters from all over the country, a countless number of them sending not only their own renewals of membership, but making a "Christmas Gift" to some friend of an annual membership as well. Here is a letter, typical of hundreds which come to us, from Chas. C. Jones of Amesbury, Mass.:

I have just finished reading the last issue of The Strawberry from cover to cover, as I always do, and as I would as soon think now of raising strawberries without a hoe as without your wonderful publication, I hasten to renew my subscription. I am sending the gift subscription to my brother, who is principal of a seminary in Maine, to be placed in the reading room where many farmers' sons and daughters will have a chance to peruse it. If it prove the means of starting some of them in the direction of strawberry culture I shall be very glad.

I am not an old grower, neither a new one, as I have grown them as a side issue for ten years. I am now working to give up everything else and make strawberries my specialty. I have found every department of your paper very helpful.

Thanking you for the help of the last year, I am, Yours truly,

CHAS. E. JONES.

That is the spirit that is bound to make this school a complete success in every respect, and it inspires the schoolmaster with new courage and new determination and makes him more confident than ever of the future of the institution in its relation to its members and the results they may be enabled to achieve.

Another member, J. R. Benton of Clinton, N. Y., in the course of a cheery letter says: "Your paper is beyond criticism. It not only educates but inspires one interested to do things as well as plan them."

That is just the point. Planning is a very important thing, and the man who does not plan his work before setting out to do it makes a very serious mistake. On the other hand, the man who does nothing but plan never will get very far on the highway of success. What we seek is to get people to do things, for it is the people who do things that make the wheels of this old world of ours go 'round.

Right at the beginning of the year we want to say something that grows out of the experience of the past. We receive a great many inquiries toward the latter part of each month asking that answers to these inquiries appear in the next month's issue. Now as a matter of fact, The Strawberry is already so big a publication and puts out so many copies, and has to do its printing so carefully in order to make the handsome appearance it does, that the first forms of each issue must be at press by the middle of the month preceding issue. That is to say, the February issue must be at press with some of its pages by the 15th of January, and so on. We wish that every member would try to get his questions into our hands not later than the 10th of the month if he wishes them to appear in the succeeding month's issue.

Now let's settle right down into the harness and pull together for bigger and better and nobler results in 1907 than ever we dreamed of in the past. We shall do our best to keep up our end, and we want you to be right with us, shoulder to shoulder—and what a team we shall make!

H. A. H., Independence, Ia. Have you ever noticed any difference in planting rows of strawberries north and south and east and west?

We have experimented a great deal with rows running north and south, and east and west, but never have noticed any great difference. We always prefer making the rows north and south if possible. This gives the sun a little better chance at all of the berries all through the foliage. However, if the patch is small, the rows should run the way that they will be the longest, which will avoid a great deal of turning while cultivating.

N. F. G., Geary, Okla. I do not understand your answer to C. F. P., Tecumseh, Mich. in the November issue in regard to keeping the runners off. As your reply reads it would seem that a new "double-hedge" row was to be formed each year. My understanding had been that the double-hedge row was to be formed the first year the plants were put out and that the plants grown in this manner were to be retained as long as the patch was fruited (two years).

2. Then your advice that a fruiting bed should not be used for a propagating bed seems to be contradictory, as you recommend taking up new plants grown from runners and filling in vacancies. Possibly I do not have a correct understanding of a propagating bed. I certainly am getting much information from your instructions though.

After the first crop of berries has been picked vines should be mowed over and, if conditions are favorable, burned when dry. When this has been done, and the double-hedge row system is followed, you should throw a furrow, cutting the soil from each side of the row. This will leave the plants in the original hedge row

THIRD PRIZE WINNER IN THE STRAWBERRY PHOTOGRAPHIC CONTEST

C. W. Gordon and His Beautiful Strawberry Field at Montville, N. J.

undisturbed. Now take a hoe and cut out all the old mother plants. These easily may be distinguished from the others, as they are larger and because they are directly in the center of the rows. The crowns of young plants that are left should be covered up with fine soil, and these allowed to make enough plants to take the place of the discarded mother plants.

2. We recommend using plants from the fruiting bed only when a few are needed for filling in vacancies; never recommend taking from the fruiting bed for general planting.

F. E., Royalton, Vt. Is it advisable to set a field entirely to bisexual varieties?

2. Do you consider the Splendid a good variety with which to mate Sample?

There is no objection to setting all bisexuals, but we always advise growers to use part bisexuals and part pistillates. As a rule, pistillate varieties are more productive when properly mated. Pistillates throw no pollen and therefore are not so easily exhausted as the bisexual. Results of a series of experiments have convinced us that even bisexuals will yield more berries and of better form when several varieties are set in the same field.

2. The Splendid is too early properly to mate Sample alone, but when used in connection with a later bisexual it is hard to beat for that purpose. For instance, if you wish to make Sample your leader, and desire to use Splendid, follow this course: Set one row of Splendid, then three rows of Sample, and the fifth row may be set to a late bisexual, such as Dornan or Pride of Michigan. In setting them in this order there will be no time during the season when there is not an ample supply of pollen in the air to supply the pistillate flowers.

S. E. R., Pentwater, Mich. Please advise me if the potato vines which I shall rake off the ground after digging potatoes will be suitable to cover my strawberry bed for the winter. I thought the tops might be better than straw as not so likely to smother the strawberries. If so please tell me.

Potato vines proved to be a very satisfactory mulch in an experiment made on our own beds, but we found they could be improved by piling them three or four feet deep and driving horses over them a few times and trampling them so that they were more pliable and thus laid closer to the plants. However, don't hesitate to use straw because it lies too closely to the plants, as this is no objection. It would be a good plan to apply the potato vines directly over the rows of plants and then put over them a light covering of straw and also in the space between the rows. This would be especially valuable in cases where oat straw is used. It is to be understood that we do not recommend this plan on a large strawberry field simply because it involves too much labor.

J. & H., Clio, Mich. We have been preparing a piece of land to set to strawberries next spring and we are undecided as to the variety. The soil is a rich, black clay loam, made very strong by plowing under a heavy crop of clover last spring, and then covered again this fall with rotted manure and plowed. We are afraid to set varieties that produce much foliage. The local demand here is for Warfields. Do you think they would do well on this soil? Is there any other you would consider better?

If you grow the Warfield in double-hedge row it should give you fine results

Smallwood's Fruit Plants

DEWBERRIES—One of the most profitable crops the small fruit grower can grow.

KENOYER BLACKBERRY—The earliest to ripen and one of the largest blackberries.

Other varieties of Blackberries, Strawberries, Gooseberries, Grape Vines, Pie Plant. **Now is the time to order for spring planting.** Write for Price List and Culture.

T. H. SMALLWOOD, R. 1, Box 5, FT. SCOTT, KAN.

Seeds, Plants, Roses,

Bulbs, Vines, Shrubs, Fruit and Ornamental Trees

The best by 53 years' test, 1200 acres, 50 in hardy roses, none better grown, 44 greenhouses of Palms, Ferns, Ficus, Geraniums, Everblooming Roses and other things too numerous to mention. Seeds, Plants, Roses, Etc., by mail, postpaid, safe arrival and satisfaction guaranteed, larger by express or freight. You will be interested in our extraordinary cheap offers of over half a hundred choice collections in Seeds, Plants, Roses, Trees, Etc. Elegant 168-page Catalogue FREE. Send for it today and see what values we give for a little money.

THE STORRS & HARRISON CO., Box 405, PAINESVILLE, OHIO.

Knight's Fruit Plants

EVERYTHING FOR THE SMALL FRUIT FARM

EATON The most wonderful advance over other Red Raspberries; Cumberland, Eureka and twelve other best Raspberries. Blower, Eldorado, Rathbun and ten other luscious Blackberries. Fifty varieties of Strawberries, all of the best money makers. Grapes, Currants and Gooseberries.

Our Catalogue Describes All of Them and Contains Much Valuable Information

DAVID KNIGHT & SON - - SAWYER, MICHIGAN

SEEDS

$1.50 Worth to Test Only 10 Cents

I want you to try my Superior Seeds. One Trial will make a Customer. I will mail one Full Packet each of the following 15 Grand New Sorts for only 10 cts. These would cost at least $1.50 elsewhere.

BEET, Perfected Red Turnip, earliest, best.
CABBAGE, Winter Header, sure header, fine.
CARROT, Perfected Half Long, best table sort.
CELERY, Winter Giant, large, crisp, good.
CUCUMBER, Family Favorite, favorite sort.
LETTUCE, Crisp as Ice, heads early, tender.
MUSK MELON, Luscious Gem, best grown.
WATERMELON, Bell's Early, extra fine.
ONION, Prizetaker, wt. 3 lbs. 1000 bush. per acre.
PARSNIP, White Sugar, long, smooth, sweet.
RADISH, White Icicle, long, crisp, tender, best.
TOMATO, Earliest in World, large, smooth, fine.
TURNIP, Sweetest German, sweet, large.
Flower Seeds, 500 sorts mixed, large packet.
Sweet Peas, ½ oz. California Giants Grand Mxd.
Catalogue and Check for 10 cts. free with order.

☞ This 10 cts. returned on first 25c. order.

J. J. BELL, Deposit, N. Y.

STRAWBERRIES

big, red and lucious are grown from **ALLEN'S** choice vigorous strawberry plants. None better. Good Luck, Chesapeake, Virginia, and Cardinal new Glen Mary, Haverland, Buolap, Marshall, Klondyke, Gandy, Bubach, Climax and all best standard sorts, 90 varieties. Prices Right; **DEWBERRIES**, Austin's, Lucretia, and Premo. I have big stock and they are fine, also Raspberry, Currant and Gooseberry plants, and Grape vines. In **SEEDS** I have the leading varieties for field and garden, my 1907 supply of Peas, Beans, Watermelon, Cantaloupe, and Cucumber seeds **are very choice.** Millions of vegetable plants in season. My 60 page Catalog for 1907 tells about lots of good things for the farm and garden and where to get them. **It's FREE.** Send name and address on postal to **W. F. ALLEN** Dept. 58, **Salisbury, Md.**

FRUIT TREES

Start your orchard now. Fortunes have been made by it. Start right by planting hardy, well cultured stock, that will live anywhere—guaranteed—materially less than agent's price—ask for prices on 1,000 lots. Illustrated Catalogue free.

CHATTANOOGA NURSERIES

Box 10 CHATTANOOGA, TENNESSEE

MAKE UP YOUR OWN BERRY BOXES

OUR

"Standard"

FOOT-POWER STAPLER

BUY YOUR MATERIAL IN THE FLAT AND MAKE UP YOUR OWN BOXES

Thousands of our stapling machines are being used by growers all over the country.

FULLY GUARANTEED AND LONGEST LIVED

PRICES ON REQUEST

ST. JOSEPH IRON WORKS, 622 WATER ST., ST. JOSEPH, MICH.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent

A Free Trial Package is Mailed to Everyone Who Writes

A. L. Rice, a prominent manufactnrer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr A. L. Rice, Manufacturer, 613 North St., Adams, N. Y., and he will send you a free trial package; also color card and full information showing how you can save a good many dollars. Write to-day.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and SPECIAL OFFER TO YOU.

R. R. FISHER, Pub., Box 88, Freeport, Ill.

Souvenir Postal Cards Free to All

We will send, all charges prepaid by us, one Free Package of Assorted Souvenir Postal Cards to anyone who will send us one new yearly subscription to American Stories and ten cents to pay for the same. Each package contains 10 different Souvenir Postals, beautifully executed, ready for mailing. American Stories, Department T. X., Grand Rapids, Mich.

IF YOU WANT STRAWBERRIES from August until November, try "Pan-American" and "Autumn." Plants for sale by SAMUEL COOPER, DELEVAN, N. Y. Circulars Free.

in your soil, and you could mate it with August Luther and Clyde, as both of these varieties are light foliage makers and thrive in rich soil. Haverland, Sample, Splendid and Senator Dunlap also will do well for you.

R. V. L., Onaway, Mich. What do you think is the matter with some of my plants? There appeared to be about three times as many leaves as there ought to be and very small; they grew thrifty until about August 1, and then commenced to dry up and die. All runners from afflicted plants were the same and they had a light colored circle in the middle of the leaves.

2. What variety would you advise me to mate Haverland with on naturally moist soil?

3. What capacity sprayer would you advise for a four-acre patch, and what would be the cost?

From the description you give of your plants it would appear that some underground insect is working on your plants. Plants will behave in this manner when the aphis is working at their roots. If this is the trouble, sprinkle tobacco dust around the plants, and the nicotine will leach down about the roots and have a tendency to drive out the lice. If they behave in this manner after growing season begins, send us some of the plants, roots and all in a tightly closed box.

2. Parsons' Beauty would give fine results with Haverland on your moist soil, and as Parsons' Beauty has such a long blooming season it will furnish pollen for most every bloom of the Haverland without the aid of any other bisexual. However, if you wish to use two bisexuals, set Lovett and Parsons' Beauty.

3. It will be hardly advisable to get a smaller capacity sprayer than one barrel. For prices we would refer you to any of the sprayer manufacturers advertising in The Strawberry. They will be glad to send you catalogues and quote prices.

S. E. C., Paulding, Ohio. What is the best early, medium and late strawberry?

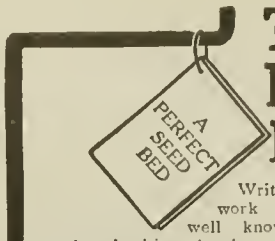
2. What kinds should I select to get the pollen scattered rightly?

3. What can you tell me about the double-hedge row? Give dimensions.

4. What do you think of the Senator Dunlap Strawberry?

This is about the hardest question we have been asked to answer because there are so many good varieties when properly handled. We believe there is more in good plants and in knowing how to handle them than there is in the difference between varieties. If you wish berries for market, we would name Excelsior and Warfield for early; Senator Dunlap for medium; Pride of Michigan or Dornan for late.

2. All of the varieties we mention produce an abundance of rich pollen excepting Warfield, which is a pistillate. For your benefit we mention some of the strongest pollenizers on the list. Excelsior, Texas, Tennessee Prolific, Splendid, Parsons' Beauty, Senator Dunlap, Dor-



THIS BOOK FREE

Write today for work by several well known agricultural authorities, showing why the Harrow is much more important than the plow. Also illustrates and describes

THE ACME HARROW

The riding harrow that cuts and pulverizes the plowed ground. Coulters or teeth work as a gang plow. *The only harrow built on correct principles.*

Sent Free on Trial.

Ask your dealer to let you see the Acme Harrow. If he hasn't it I will send you one for free trial. No expense to you. Don't forget to write for book.

DUANE H. NASH,
Box 39. Millington, N. J.

ROBUST, STURDY, HARDY

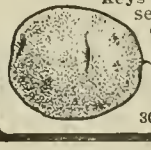
They live, grow, make money for you. Got our catalog? If not, send for it today. Millions of plants, trees, bushes — general nursery stock ready. Free catalog tells all. Valuable spraying calendar in it. Order stock now for fall setting.

Peaches
Pears
Apples
California Privet

ARTHUR J. COLLINS
Box 415, Moorestown, N. J.

Big Money In Early Potatoes

Potatoes grown from Northern Seed are always earliest. They yield, look, cook and taste best and bring best price. Our Early Petoskey matures two weeks ahead of any Southern seed. A new potato, nice size, round, smooth, cooks perfectly, fine flavor. Three Big Petoskeys and our new, 150 page, seed catalog, describing 25 other choice potatoes, by mail for 25c. Catalog alone, free, if ordered quick.



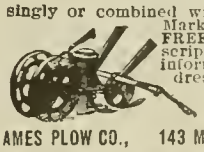
DARLING & BEAHAN,
309 Michigan St., Petoskey, Mich.

A THRIFTY GARDEN

whether large or small, needs proper tools for seeding and cultivating. We make garden implements of all kinds, a tool for every purpose.

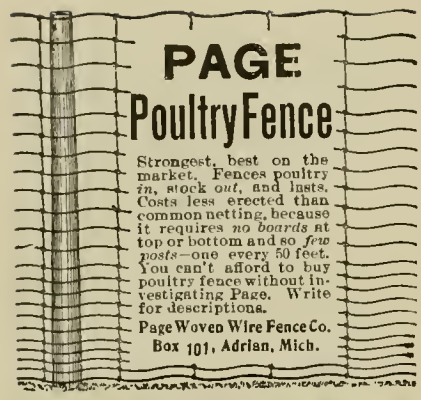
MATTHEWS' NEW UNIVERSAL
Hand Seeders and Cultivators

singly or combined with Hoes, Plows, Rakes Markers, etc. Over 20 styles. FREE BOOKLET giving description, prices and valuable information mailed to any address. Send for it now



GAROFH TOOLS FOR EVERY PURPOSE

AMES PLOW CO., 143 Market St., BOSTON, MASS.



PAGE Poultry Fence

Strongest, best on the market. Fences poultry *in*, stock *out*, and lasts. Costs less erected than common netting, because it requires *no boards* at top or bottom and so *few posts*—one every 50 feet. You can't afford to buy poultry fence without investigating Page. Write for descriptions.

Page Woven Wire Fence Co.
Box 101, Adrian, Mich.

Dr. Brigham's Poultry Class

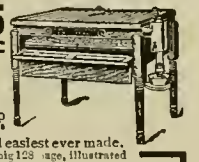
Home study with progressive, successful practice at almost no expense.

We have secured the services of Dr. Arthur A. Brigham as associate editor, who will conduct "Dr. Brigham's Poultry Class," a series of twelve chapters, covering every phase of poultry culture, in a systematic, scientific, utility home course of study—equal to any $30 to $50 correspondence school course. If you want practical knowledge based upon a life-time of research you would not be without Western Poultry Journal for a dozen times its cost. We will send you our 32 to 80 page, illustrated monthly, one year, beginning with the first chapter for only 50 cents.

WESTERN POULTRY JOURNAL
232-234 Granby, Cedar Rapids, Iowa

Dr. Brigham's Poultry Class is the highest priced, most practical, exclusive featured article in the American poultry press.

240-EGG Incubator $11.75



120 Egg Size, $9.00
80 Egg Size, $7.50

Brooders equally low. Not cheap machines but the famous "Ideal" —guaranteed to be the surest and easiest ever made. Why not save from $5 to $10? Get our big 128 page, illustrated poultry book FREE.

J.W. Miller Co., Box 372, Freeport, Ill.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

nan and Pride of Michigan. The best among this list and the one that produces the most and richest pollen is the Pride of Michigan.

3. The double-hedge row when fully formed should be about twelve inches wide from outer edge of plants. The plants should stand about six or eight incher apart.

4. The Dunlap is one of the very best bisexual varieties ever introduced, and seems to do equally well in all localities.

J. T., Mexico, Ind. I did not get to clean up one of my strawberry patches till quite late—about the middle of August. I then mowed them close to the ground, narrowed the rows and cultivated thoroughly. They soon put on new foliage and looked fine but sent out few runners. About the middle of October they began to bloom and have continued to the present time and are now (November 15) covered with bloom, although we have had several freezes. I fear they are ruined for next year's crop.

The reason your plants did not make more runners was that you did not get them prepared for the second crop until so late in the season. Their blooming in the fall will not injure the crop for next season.

G. R. P., Lawrence, Mich. Where and for what price can I obtain nitrate of soda, muriate of potash and bone meal?

2. Is the bone meal the same as is used for poultry food?

3. Should not the ground be made quite rich and plants set 24 inches apart for the Klondike?

4. Does the Pride of Michigan require rich ground?

5. Will the Gandy do well in this locality? Have sandy loam that was in potatoes in 1906 and have very little manure to give it. Are they as profitable a variety as Aroma and are they later? Would the Oregon Iron Clad every fourth row pollenize them? Is the Iron Clad a heavy bearer and good shipper, and do they require much manure, and are they as late or later than the Gandy?

6. Is the Parsons' Beauty a good shipper?

7. How early in April is it safe and advisable to commence setting of plants?

8. Are pistillates heavier bearers than bisexuals?

Nitrate of soda, muriate of potash and bone meal may be purchased of any fertilizer factory. As he is nearest to you we refer you to Colon C. Lillie, of Coopersville, Mich. The nitrate of soda will cost about $3 per hundred; muriate of potash, about $2.50 per hundred, and bone meal about $1.25 a hundred pounds. These are staple articles and all factories should quote about the same prices.

2. Bone meal used for fertilizer is finer ground than that used for chicken

Let Me Quote You a Price on a CHATHAM Before You Buy an Incubator

It will take one penny for a postal, and a minute of your time, to write for Special Prices on 1907 Chatham Incubators and Brooders. No matter what kind of a machine you have in mind—no matter where you intend buying, or when—**TODAY** you should send me a postal and get my catalog and prices.

My book will post you on the best way to make money out of poultry—and my prices on Chatham Incubators and Brooders will show you how to start in the poultry business for a small amount of money.

Chatham Incubators are sold on

84 Days FREE

trial, freight prepaid, and are guaranteed 5 years. Chatham Incubators are the best possible to make. They are tested, and known to produce the largest percentage of strong, healthy chickens

If you are most ready to buy a machine now, put it off for a day or two, until you can get my prices and catalog. Then decide.

We have warehouses in all the leading trade centers—where Chatham Incubators and Brooders are kept in stock—insuring prompt delivery.

I invite you to write for my prices and book. I can save you money on an Incubator.

MANSON CAMPBELL,
President Manson Campbell Co., Ltd.,
282 Wesson Ave.,
Detroit, Mich.

If you live west of the Mississippi River, address me Box 282 Topeka, Kan.

FROM RANCH TO HOME

Right from the home of the Angora goat to your own home

Beautiful Angora Rugs and Robes

and express prepaid. Oregon raises the finest. **I was awarded a gold medal on rugs at the Portland Exposition in 1905.** Satisfaction, or money refunded.

A. L. Hampton, Olalla, Oregon

Better Fruit

A Fruit Journal devoted exclusively to commercial fruit growing. Articles on up-to-date methods by able and successful men. Methods of the West, famous as producers of fancy fruit and world renowned as high-price getters

Subscriptions, $1.00 per Year
Sample copies mailed on request

BETTER FRUIT PUB. CO., HOOD RIVER, ORE.

Automatic BUCKEYE Incubator

All Metal, Fire Proof, Continuous Hatcher.

NEEDS NO THERMOMETER.

Adjusted by us and ready to run when you get it. Guaranteed for five years. Good credit at home is good with us. Get the best and save money. CATALOGUE FREE.

BUCKEYE INCUBATOR CO. Box 48, Springfield, O.

feed. In ordering always request that the bone meal be finely ground.

3. Make the ground only medium rich for Klondike. Plants may be set twenty-four or thirty inches apart in the row.

4. Pride of Michigan appears to do well in almost any kind of soil, but where ground is quite rich berries will be larger and there will be more of them.

5. Gandy has a preference for heavier soil than yours, but we have grown some splendid crops of Gandy on sandy loam. It does best where little manure is used. Gandy is later by several days than Aroma and this makes it a little more profitable. The Oregon Iron Clad will be good to set with Gandy, as it also does well on medium-grade soil. The Iron Clad ripens a little earlier than Gandy.

6. Pick Parsons' Beauty a little under ripe and it stands shipping quite well.

7. The earlier the plants are set the better for them. Just as soon as your ground will do to work in it will be safe to set the plants.

8. If pistillates properly are mated, they will generally yield more per acre than will bisexuals.

W. J. C., Thrums, B. C. Have a field of finely growing plants, and next spring intend to set a new field. I am planning to set plants every ten or twelve inches apart and keep off all runners, and not layer any runner plants at all. What do you think of this plan?

For the hill system the plan is ideal. We should make the rows not more than three feet apart and set the plants twelve inches apart in the row. Keeping all the runners off will result in throwing more strength to the mother plant which will enable her to build up a larger number of crowns and a heavy fruit bud system.

J. W. K., Woodstock, N. B. Have a small piece of ground I want to plant to strawberries next spring. Was planted to beans and turnips this year; as it is too late to sow a cover crop, how would you suggest working it so as to have it in good condition for plants next spring? Ground is sandy loam. Have plenty of mixed stable manure.

2. As it is very cold here in New Brunswick, have frost up to first week in June, what plants would you suggest setting—early, medium or late?

3. Can get plenty of buckwheat straw. Will this make a good mulching?

4. Is there any other kind of grain that I can substitute for rye as a cover crop? There is no rye grown in this section.

Vegetables of any kind are ideal to grow in advance of strawberries. By the time this issue reaches you it will be entirely too late to break up this piece of ground, therefore we would suggest that you cover the entire patch with the mixed stable manure you now have on hand. Sprade it lightly and very evenly, so that it will cover the entire surface. Of course, it always is best to have some cover crop like rye or clover growing on the ground during winter. However, the manure will be a covering and a great protection to the ground, and will furnish the required plant food. A covering of any kind keeps the soil from puddling and aids to retain a mellowness in the soil that could not be maintained in any other way.

2. This is a hard question to answer definitely as it depends entirely upon the stage the bloom has reached when the frost comes. That is, one of the earliest varieties might escape the frost entirely, as it might so happen that there would be no frost during the more sensitive period. That period is immediately after the bloom has opened, and when the anthers are bursting and the stigmas are receiving the pollen. Thus you will see that a medium or late variety cannot be absolutely sure of escaping the frost, as a frost might come at the most critical stage of their growth. Yet the best advice we could give as a general rule in a locality such as yours is to set largely of the later varieties, It would be a good plan to set sparingly of extra earlies, such as Excelsior and Texas, as both of these varieties build up a large foliage, which serves as protection to the bloom during a frost. The Crescent is very hardy in bloom and through some experiments we have been making have found it a reliable variety to recommend for northern latitudes. Senator

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES

The IDEAL IN REALITY

PATENTED NOV. 17, 1903

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all** who have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crushed. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the **flat condition.**

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

Sales during 1906 in **31 states and some foreign countries,** and **1400 new names** were added to our already large list of customers. **Communication with 47 States**

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents

Dunlap would be good for medium varieties, and Dornan and Pride of Michigan will be found entirely satisfactory for the late varieties. All of these are heavy foliage makers.

3. While we do not consider buckwheat the best material for mulching, if nothing else may be secured conveniently it will serve the purpose admirably. The principal objection to buckwheat is the stiffness of the straw, but after going through the threshing machine it gives good satisfaction as a mulch.

4. Where rye cannot be obtained, wheat will take its place and will serve your purpose well.

W. D. B., Onawa, Ia. The all-important problem with us here is, How can we rid the soil of the white grub? Is there not some chemical, like sulphur or salt, that if put on the land will destroy them?

Scientists claim that commercial fertilizer has some effect upon all underground insects. The salts contained in the chemicals are quite offensive to the grubs and the wooly aphis. While we have reason to believe that this is true, yet these chemicals are not sufficiently effective to destroy the grubs. As we have said many times, breaking up the ground is the best preventive, and where we have followed the plan of fall plowing, and used commercial fertilizer in the spring, we never have been troubled with the grub.

C. A., Oakland, Oregon. Is mulching in a warm, wet climate the right thing to do? If so, what month should it be applied?

2. I set one thousand Excelsior plants in fall of 1905. Mowed them off in August. They kept growing and started to bloom; most of them in bloom now (November 7). Will that injure their fruitage next year?

3. What is the weight of one thousand strawberry plants when crated?

The mulching of strawberries is a necessity in any climate. Of course, in a state like Oregon mulching does not serve so many purposes as it does in a latitude like our own, as your plants never are endangered by alternate freezing and thawing; but when the big crop of berries is ready to be marketed, then is the time that the value of the mulch is appreciated. Oregon folk don't like grit on their strawberries any better than do Michigan folk, and the cleaner the fruit the higher the price and the greater satisfaction you will get out of their production. In countries like your own mulching may be spread along each side of the plants, but not over the plants. All you need is a clean bed for the fruit to ripen on. The best time to apply the mulch in your latitude is during December or January.

2. If weather conditions remain favorable until the pollen takes effect upon the bloom now open in your plants, it is more than likely that you will have a fall crop of berries, something that is very common in the warmer sections of the Pacific coast. It is not likely that a sufficiently large percentage of the buds will develop this fall to cut down your next seoson's crop.

3. The weight of a thousand strawberry plants depends largely upon the variety in question. Exceedingly large plants will weigh when packed ready for shipment about thirty-five to forty pounds, while the smaller sorts will not weigh more than twenty-five or thirty pounds.

IN connection with the multitude of interesting and valuable experiments with plants and plant life carried on in the Department of Agriculture at Washington, some startlingly suggestive phenomena have been observed. For instance, it has been ascertained that when plants are wounded their respiration increases, and that at the same time their temperature perceptibly rises, as if a kind of fever had been produced by the wound. In recent experiments a thermo-electric apparatus, capable of registering a change of one-four-hundredth of a degree, was employed. When a potato was wounded, the fever manifested itself by an elevation of temperature which was greatest at the end of twenty-four hours, when it began slowly to decline. An onion similarly treated acquired an increase of temperature many times greater than that shown by the potato, and the fever, instead of being confined to the neighborhood of the wound, affected the entire onion. In fact, the onion proved to be more readily affected in this way than any other vegetable experimented with. The rise of temperature is caused by increased absorption of oxygen.

ONE of the inventions of which Three Rivers folk are particularly proud is the Dodge Potato Digger, and it is one intended to increase the fame of the town, already noted for its many and important mechanical inventions. The Armstrong Machine Co. manufactures this latest candidate for the potato-grower's favor, and all it asks is a chance to show you just how excellent a device they have produced for the clean, safe and economical digging of potatoes. If you are interested, send to them for a catalogue. It is free, and you will find it valuable.

WE take pleasure in introducing to our readers this month the Standard foot power stapler made by the St. Joseph Iron Works of St. Joseph, Mich. This stapler is a wonderful economy in the making of strawberry boxes, as it enables you to purchase your materials k. d., and make them up into boxes at your convenience during the winter months. This machine feeds the proper length of wire, cuts it off, forms the staple, drives it through the berry box or other material, and clinches the end of the staple on the other side, all in one stroke of the foot treadle. It is a marvel of simplicity, strength and durability. You might join your berry-growing neighbors in purchasing a community machine. Write the company for circular, mentioning The Strawberry.

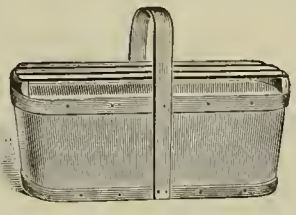
ONE cannot study the situation as it relates to practical agriculture without reaching the conclusion that one of the greatest sources of loss to the farmer is through his failure to give the grain and grass, the vegetables and plants, a proper seed bed. In this day of improved machinery there is no possible excuse for longer encouraging this waste. The man who gave the best years of his life to the perfecting of a harrow that would remedy this and form a seed bed as near ideal as was possible, did not live in vain. Who shall estimate the good Duane H. Nash and his Acme Harrow have done for agriculture? For this Acme Harrow comes as near solving the problem and enabling the farmer to plant his seed in a character of soil where it is sure to start, and start quickly and have an uninterrupted, strong growth, as any harrow ever perfected. It was named by the inventor, "harrow, pulverizer, clod crusher and leveler", and it is all of these. Those who are sufficiently interested in increased returns from their lands to do so, will be well repaid if they will look up the Nash advertisement in this issue and write to him for his little book entitled "A Perfect Seed Bed". A copy will be sent on request if you mention The Strawberry.

Established in 1869

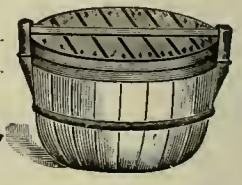
Experience Counts

Headquarters For BERRY BOXES

Peach and Grape Baskets
Also Melon Baskets



Fruit shipped in our packages insures highest prices.
Order boxes now and make up at your leisure.
Write us for Berry Box Machine.
Illustrated Price List Free.



Wells, Higman Company
Box 10. ST. JOSEPH, MICH.

For Pedigree Holstein Cattle
of the best strains of
BIG MILK PRODUCERS
Write DR. T. J. HAINES, Three Rivers, Mich.
PRICES LOW

1907 Reading for Strawberry Folk

OUR CLUBBING COMBINATIONS FOR 1907

See These 3 Big Triple 3's

The Strawberry	$1.00
The World Today	1.50
American Magazine	1.00
Breeders' Gazette	2.00
Housekeeper	.60
Total Value	$6.10

3 .33 FOR ONE YEAR

The Strawberry	$1.00
Cosmopolitan	1.00
Harper's Bazaar	1.00
World Today	1.00
Floral Life	.25
Vick's Magazine	.50
Total Value	$5.25

$3.25

The Strawberry	$1.00
Farmers' Voice	.50
Breeders' Gazette--weekly	2.00
Farm and Fireside	.50
Boys and Girls	.50
The Housekeeper	.60
Choice of any 50c magazine named	.50
Total Value	5.60

$2.95

The Strawberry	$1.00
World Today	1.50
Breeders' Gazette	2.00
Farm and Fireside	.50
Boys and Girls	.50
Choice any 50c magazine named	.50
Total Value	$5.50

List of $1 Magazines

which may be substituted for any $1 publication mentioned on this page

Gleanings in Bee Culture	$1.00
Western Fruit Grower	1.00
Success	1.00
American Magazine	1.00
Little Folks	1.00
The Garden Magazine	1.00

The Strawberry	$1.00
World's Work	3.00
Delineator	1.00
McClure's	1.00
Total Value	$6.00

Single subscriptions for these magazines cannot be taken by any agent or added to any club at less than the full list price. No change in this club allowed

3 .33 FOR ONE YEAR

IF you want any publication in the country and don't find it in this list, send to us for it, or make any combination you desire. We purpose to furnish our folks with the best and most desirable literature in the world at the lowest possible price at which it may be had.

The Strawberry	$1.00
Farm and Fireside--semi-monthly	.50
Housekeeper	.60
Western Fruit Grower	1.00
Choice of any 50c magazine named	.50
Total Value	$3.60

$1.95

The Strawberry	$1.00
Farmers' Voice	.50
Housekeeper	.60
Farm and Fireside	.50
Boys and Girls	.50
Choice of any 50c magazine named	.50
Total Value	$3.60

LIST OF FIFTY CENT MAGAZINES

Which may be substituted as desired for any 50c magazine named in any of the combinations on this page

Apple Specialist	$ .50	Farm Poultry	$ .50
Reliable Poultry Journal	.50	Poultry Success	.50
Am. Poultry Journal	.50	Green's Fruit Grower	.50
Poultry Tribune	.50	American Swineherd	.50
Vick's Magazine	.50	Boys and Girls	.50

The Strawberry	$1.00
Review of Reviews	3.00
Woman's Home Companion	1.00
Success Magazine	1.00
Total value	$6.00

No change in this club allowed

3 .33 FOR ONE YEAR

THE STRAWBERRY —One Hundred and Eighteen Portage Avenue— Three Rivers, Michigan

Grow Apples that PAY the Producer and Please the Consumer

KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON. BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inlerior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-Iruit Plants, Roses, Ornamentals, Etc.

For 82 Years STARK TREES

have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success ol customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."

DELICIOUS
TRADE MARK
STARK BRO'S
A 5 YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1¼ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

February 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

SCARFF'S SMALL FRUITS

ORDER TODAY

MANY MAKE $300.00 PROFIT PER ACRE

3 Splendid Blackberry Plants FREE

$300.00 per Acre

MY FRUITS are doing it everywhere—Customers are simply delighted, and yields are far exceeding our claims.

"Sold over 2 bushels from 50 plants only one year old."

W. N. Scarff—I must tell you about our Cumberland and Haymaker Raspberries I got from you. I was simply astonished at the first crop. The Cumberland were the finest black caps I ever saw and the yield something to talk about. From the 50 plants of Haymaker (only one year old, remember, and from which we only expected one-half crop,) I sold 2 bushels beside what were used in the family. They cannot be surpassed and are very hardy. (At this rate the yield was over 100 bushels per acre the first year, at $3.00 per bushel, $300.00). Signed, J. H. FORTENBAUGH, Pa., March 15, 1906.

I OFFER a large surplus of the following stock of first class plants. Everything true to name and sure to please you.

Strawberry Plants

All carefully packed in fine moss. Tied in bunches of 25 plants each. Our plants are fine and should not be compared with the cheap plants offered. Let us book your order.

Brunette
Brandywine
Bubach
Bismark
Clyde
Climax (new)
Corsican (new)
Crescent
Excelsior
Greenville
Gandy
Haverland
Kittie Rice (new)
Lovett
Louis Hubach
Luther
Mitchell
Midnight (new)
Marshall
New Globe (new)
Nick Ohmer
Pine Apple (new)
Rough Rider
Senator Dunlap
Staples
Sample
Sunshine
Uncle Jim
Warfield
Repeater
Marie
New York

Raspberries

Earhart Ever-bearing
Gault Ever-bearing
Cumberland
Eureka, genuine
Gregg
Kansas
Ohio
Palmer
Souhegen
Conrath
Munger (new)
Cuthbert
Golden Queen
Hansell
Loudon
Miller
Marlborough
Turner
Columbian
King (new)
Shaffer Col.
Haymaker (very fine)
Cardinal (new)
Brilliant (new)
Jap Wineberry
Ruby (new red)
Eaton (new red)

Blackberries

Crystal White
Early Harvest
Erie
Eldorado
Kittatinny
Lawton
Maxwell
Minnewaski
Early King
Rathburn
Merserean
Ancient Briton
Ohmer
Stone's Hardy
Kennoyer (new)
Blowers (new)
Ward (new)
Snyder
Taylor
Wilson's Early
Wilson Jr.
Agawam
Wachusett
Iceberg

Currants

Chautauqua Climbing
Red Cross
North Star
Victoria
Cherry
White Grape
Perfection
Red Dutch
Fay's
Versailles
Lee's Prolific
Pomona
London Mkt
Wilder
Crandall

Garden Roots

Rhubarb, divided roots
Rhubarb, grown from seed, fine
Horseradish Sets

California Privet

Hedge and Forest Tree Seedlings

California Privet
Osage Orange
Catalpa Speciosa
Russian Mulberry
Black Locust
Honey Locust
Soft Maple

Asparagus

Conover's Col., 2 years
Barr's Mammoth, 2 years
Palmetto, 2 years
Columbian White, 2 years
Donnald's Elmira, 2 years
Extra strong 3-year-old Asparagus Roots

Sage

Holt's Mammoth. Plants of strong growth, very large, borne well above the ground, are of unusual substance, strong flavor and superior quality.

Novelties

Japanese Wineberries
June Berries
Baby Rambler
White-Blackberries
Strawberry-Raspberry
Buffalo Berry
Rocky Mountain Cherry

$250.00 Per Acre Net

"I had just one acre of Snyder. I sold 123 bu. for $250 net, which I think is pretty good, beside I have lots of sucker plants to sell with a demand greater than the supply, etc., etc." SETH W. HUNTLEY. Aug. 30, 1905.

House of W. N. Scarff, New Carlisle, Ohio

Send for my new Free Catalogue.

W. N. SCARFF

Wholesale and Retail Nurseryman

NEW CARLISLE, OHIO

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 2 Three Rivers, Mich., February, 1907 $1.00 a Year

FROM the president of the Nashville Strawberry Association comes a note giving in brief form the manner and method of the Tennessee organization. As many strawberry growers in other sections are contemplating organizing before the selling season begins we publish extracts from the secretary's letter, hoping it may encourage them to put their half-formed plans into execution. The president writes: "The Nashville Strawberry Association was organized in August, 1905, by the election of a president, vice-president, secretary and salesman, the secretary to be treasurer also unless the rule was changed by a vote of the members. The association shipped in 1906 more than eleven thousand six-gallon crates of strawberries at an average price approximating $2 a crate. Most of them were sold on the track at Nashville. The secretary and the sales agent sell the fruit, collect all moneys and pay the same over to each member according to his due. The membership fee is one dollar, and each member is furnished with a stencil stamped wi his name, number and rural route. Fo. eir services the secretary and the salesman receive five cents each per crate. The president and vice-president receive no pay for services. The officers are—W. R. Johns, president; George W. Carney, vice-president; A. W. Freeman, secretary and treasurer; Charles R. Dair, manager and salesman." It is interesting to note that the cost to the grower of selling this fruit was less than one-half cent per quart—a record for the organization plan most encouraging.

SENATOR DUNLAP, whose name has become a household word wherever strawberries are grown because of the favorite variety that bears his name—while not extensively interested in growing strawberries is one of the best-known horticulturists in the country, and as president for many years of the Illinois State Horticultural Society, and as head of the Apple Growers' Association of the Mississippi Valley, has filled for many years a large place in the eye of the fruit-growing interests of the nation. And as his enthusiasm grows with each year, and his horticultural responsibilities appear to be increasing with time, his name is destined to be still better known in the future. By the way, Mr. Dunlap won his title as senator by sixteen years of service (sixteen years with the conclusion of his present term) in the upper house of the Illinois legislature. How much Illinois horticulture owes to his services in its behalf is beyond computation, but it is very great. Now that the educational side of Illinois agriculture is calling for substantial consideration in connection with the college at Urbana, a call that ought to be honored to the utmost, it is gratifying to know that so intelligent a friend of advanced horticulture is in position to help along the good work.

An Appreciation

Clio, Mich., Jan. 5, '07

The Strawberry,
Three Rivers.

Gentlemen:-Enclosed please find one dollar for payment for The Strawberry for 1907. May success attend your efforts to make it impossible for any strawberry grower to be without it. We are very grateful for the information it furnished us the past year. We are only fearful that you cannot maintain its present standard at the price of subscription. Again wishing you success, we are

Yours truly,
JONES & HAVEN.

MR. DUNLAP was one of the program makers at the recent annual meeting of the Michigan State Horticultural Society held at Benton Harbor, and in course of conversation with a Strawberry representative spoke of his orchard at Savoy, Ill., one of the finest in his state. "It is matter of surprise to some people that I can afford to grow apples on $200-an-acre land," said Senator Dunlap, "and it would not be possible to do so at a profit unless the orchard was first-class and its product such as to command immediate sale at top prices. As a matter of fact, I do not have to ship my apples any distance, as the people of Champaign and Urbana are glad to get them, so that I have neither freight or commission dealers' charges to pay." Here is a lesson of highest importance from experience. There is no doubt that Mr. Dunlap is netting more from his land, acre for acre, than many apple growers in his state whose orchards are on $50-land, and are located in districts better adapted for fruit than is the corn land of his particular section. It is a lesson in quality that ought to appeal to fruit growers in every line.

ONE of the men in closest touch with the fruit-growing trade at a certain Michigan city on the lake was discussing with a visitor some features of the strawberry trade there. "Do you know why it is there is so much poor stuff allowed to go from this town and surrounding country?" he asked. "It's because of the low freight rates given by the boat lines to Chicago. The rates are so low, and it is known that almost anything can be palmed off on the Chicago market, that many growers make no attempt to select and pack their berries attractively. It

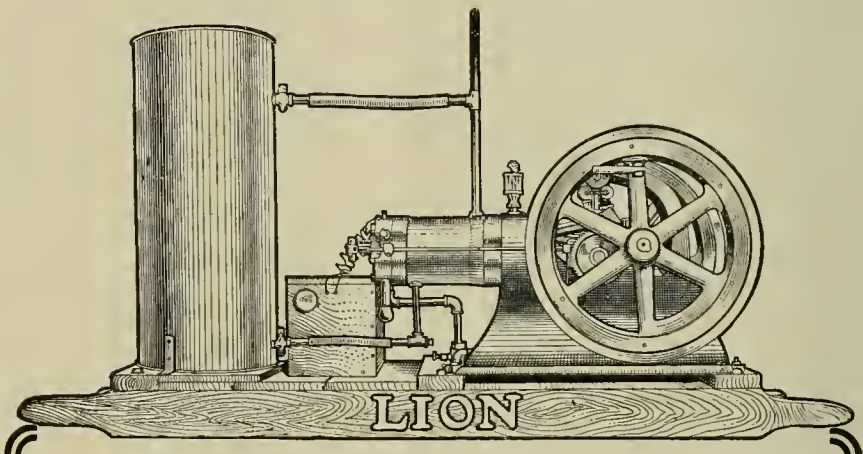
would be of positive advantage to the fruit interests here if freight rates were higher. There is such a vast quantity of fine fruit grown here that would command highest prices on the Chicago market if it were sent there in better shape, and if it cost something worth while per box to get them there, more care would be taken in this regard."

IT is something of a surprise to hear a statement of that kind, yet it is a common fault with human nature that that which "comes easy, goes easy"—does not command the respectful treatment accorded things that it takes our very best to secure. And so it may be as the old-timer said, that the blessings of a low freight rate were turned into an actual disadvantage by the carelessness, indifference or neglect of its beneficiaries. It might not be so bad if only those directly at fault were affected by such a condition of affairs. But this is not the only result. The most careful and painstaking fruit grower is adversely affected by the shortcomings of his neighbor, and the general reputation of the district is discredited by them. The better elements among the fruitmen should organize in the interest of good fruit, honestly packed, confident that morally and financially the results would be more satisfactory.

STRAWBERRIES are coming up from the South in considerable quantities just now, and at some points were selling in early January as low as 45 cents a quart. Every year notes an improvement in this regard, not only in a better quality of fruit, but in a steadily increasing supply of the delicious berries. Portions of the South have in the past been greatly discouraged by failure of the railways and car-line companies to furnish adequate transportation facilities. In many cases the losses of 1905 were repeated in 1906, but this was in part due to the tremendous crop yield of the latter year, which fairly swamped the transportation facilities provided. Recent conferences between the railway officials and the representatives of the fruit interests have served to clear the way to better things, and it is believed that no trouble will be experienced in the Atlantic Coast states, at least, this year. Reports from there indicate that not only have the railways promised ample service, but that freight rates will be more equitable than they have been in the past.

WHAT can a woman do? Well, we are letting her tell her own story this month. In fact, several of her are contributing interesting experiences in this issue of The Strawberry, and it's easy enough to see that there is one thing she can do outside the routine of household work and do it well and with such joy and zest as keeps down the wrinkles of age and gives to life broad meaning. Mrs. Hey and Mrs. Treman of Illinois, and Mrs. Holmes of Maine, have shown by their own experiences that the strawberry field is a home field; that is, it is in its nature such a work as keeps the woman within the shadow of her home and in close touch with husband, children and the myriad interests of the household. It preserves that fine womanhood which is the very heart of civilization and right living, while it offers to her a delightful and health-giving method of helping replenish the family purse. Read what these practical women say on the subject. It's an inspiration just to know what they are doing.

FROM Boise, Idaho, comes an interesting strawberry item, relative to the patch of J. H. Waite located a short distance from that city. The Boise News says that Mr. Waite's patch is just a little short of an acre and a quarter. Thus far this year he has realized from the sale of berries raised on this patch



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

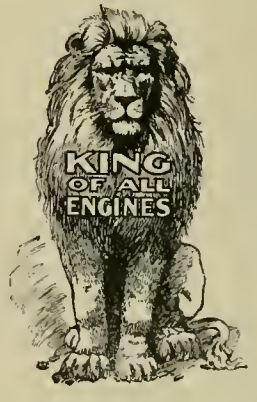
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

BALLOU MANUFACTURING CO., Belding, Mich
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in
Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

BALLOU MANUFACTURING CO.,
Successors to Lyons Engine Co.
BELDING, MICH.

exactly $1232.67, and unless there is a hard freeze he will continue to market berries all winter. Mr. Waite looks after his patch himself and practically all he makes is profit. He marketed his first berries June 1, and from that date until July 7 he brought in 12,798 boxes, from which he realized $807.70. In September he marketed forty-three boxes, which netted him $10. Since the first of October he has marketed 2447 boxes, from which he realized $414.97. The total yield to date (autumn of 1906) has been 15,198 boxes.

The Woman With the Hoe

By Mrs. F. D. Treman

LAST spring I ordered 1,000 strawberry plants—500 Senator Dunlap and 500 Texas—and they reached us in fine condition. We at once went to work setting them out, and I concluded that setting strawberry plants was about the hardest work, for I couldn't straighten up for several days afterward.

My husband helped get them into the ground and plowed them several times afterward, but he then made a change in his work and disposed of the horse, and the strawberry bed was left to "the woman with the hoe." I toiled in that patch early and late and I studied The Strawberry to get all the instruction I could and, as far as my ability went, did as instructions said.

The Texas plants did not do as well as the others, for I lost about 100 of them from drouth and worms, but by September I had some fine new plants that I took from my strongest plants and filled in where they had died. The Senator Dunlaps did splendidly. They were set in double-hedge rows. I allowed each mother plant to make four plants and kept all other runners off. I never enjoyed outdoor work better than I did that, even though it was hard; and the plants seemed to enjoy it too.

It did my heart good to hear passers-by exclaim: "Just look at those strawberry plants!" and to have my neighbors say they never saw anything like it. We covered them up with oat straw in November and now the thing that worries me is a fear that they may be too warm, for the weather is far from cold. I am anxiously waiting the coming spring. Perhaps you will think this a long letter, but I feel as though I was writing to an old friend. I have been so busy with the holiday work I have neglected to send in the renewal of my subscription to The Strawberry, but I enclose it now and also the name of a friend to whom I wish the paper sent. Hope I am not too late to have the special rates offered for the Christmas Gift subscription.

Aurora, Ill.

The Strawberry is indeed the friend of everybody, but especially of the man or woman or boy or girl engaged in strawberry production. And we like to have every member of our great and growing family feel just as Mrs. Treman does about it.

That Christmas-gift offer holds good with all our old subscribers, and the results that have come from it are so satisfactory that we are quite willing to "have Christmas all the year," as the song says.

Our correspondent found the work of plant setting tiresome; so it is. But the joy she took in those beautiful plants and the contemplation of the fruits of her toil next season and in the years to come, made the whole season's work a joy and, we are sure, a blessing to her. The woman with a hoe in a strawberry patch is in her native element, and health and contentment are her certain reward, to say nothing of finances or fruit.

GREAT things are the sum total of an infinite number of little things. Lofty Pike's Peak is made of so many atoms that they could not be counted if all the world were to set about to do so and had a million years to do it in. In like manner what we call life is made up of simple everyday things—duties, responsibilities, opportunities seized upon and made of account; loving acts, performed out of a sincerely loving heart. Make your aim high, but not so high that you overlook the simple things of today in your desire to accomplish some overwhelmingly big thing on the morrow. The simple thing, well done today, may be the truly great thing in embryo of which now you dream as your life's highest achievement.

HOW many communities might have the same experience as that related by the Charleston (W. Va.) Mail in the following: "Up to about two years ago few, if any, strawberries were raised for market in Kanawha county. Our earliest came from Florida and other Southern markets and the later ones from Mason county. Several years ago, one of Charleston's successful grocerymen succeeded in interesting some farmers on Davis creek in cultivating strawberries for the Charles-

The Greatest of Musical Inventions—the Two-Horn

DUPLEX Phonograph On Trial

IT is the one phonograph that gives you all the sound vibrations. It has not only two horns, but two vibrating diaphragms in its sound box.

Other phonographs have **one** diaphragm and **one** horn. The Duplex gets **all** the volume of music; other phonographs get the half. Not only do you get more volume but you get a better tone—clearer, sweeter, more like the original.

Our handsomely illustrated

Free Catalogue

will explain fully the superiority of **The Duplex.** Don't allow anyone to persuade you to buy any other make of phonograph without first sending for our catalogue.

The Duplex is not sold by dealers or in stores. We are **Actual Manufacturers,** not jobbers, and sell **only direct** from **our factory** to the user, eliminating all middlemen's profits. That

Each horn is 30 in. long with 17 in. bell. Cabinet 18 in. x 14 in. x 10 in.

$29.85 Freight Prepaid

is why we are able to **manufacture** and **deliver** the best phonograph made for only $29.85. We save you exactly $70.15 on the price. Sold through dealers the Duplex would cost $100. Our price is $29.85.

Seven Days Free Trial.

We allow you seven days free trial in your own home in which to decide whether you wish to keep it or not. If the machine does not make good our every claim—volume, quality, saving, satisfaction—just send it back. We'll stand all freight charges both ways.

No Money In Advance.

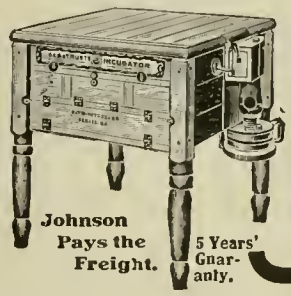
If you object to sending cash you may deposit it in trust with your banker, merchant or postmaster to be returned to you if the machine is not **satisfactory to you.** You are the only judge. As we pay freight it costs you nothing to try.

Our **Free Catelog** will interest you. Send for it today.

Duplex Phonograph Co., 310 Patterson St. **Kalamazoo, Mich.**

OLD TRUSTY INCUBATORS AND BROODERS

The Easiest to Operate Because It Runs Itself.



Made of the best materials—and so the most durable. Patented copper-pipe heating system that gives the **only** perfectly even radiation of heat to all parts of egg chamber. Regulator so perfect that you might run it without a thermometer. Sold on

40, 60 AND 90 DAYS' TRIAL

and Five Years' Guaranty.

Highest quality, fairest prices, fairest terms. No matter where you live, Johnson, the Incubator Man, can save you money in prices and in results, and save you chicken troubles.

SEND FOR JOHNSON'S BIG BOOK

Chock-full of common-sense chicken talk and straight from the shoulder money-making suggestions. 300 illustrations. **It is Free.** Write today **sure,** and get his special offer.

M. M. JOHNSON CO., CLAY CENTER, NEB.

Johnson Pays the Freight. **5 Years' Guaranty.**

ton market, and prevailed upon them to try the experiment. The first year, which was two years ago, they made a success of it. This year they found it even a better proposition. The probabilities are that this business in strawberries will grow until the local market is fully supplied." There are opportunities without number to the man who will.

Cheer From a Professional

By J. C. Nicholls

HEREWITH find $1 to pay for The Strawberry another year Keep it coming; it's O. K. I don't see any reason for its "running out" as some readers feared. The average strawberry man is the most enthusiastic individual on top of the earth; and when he has an opportunity to talk "strawberry" he can scarcely find a place to quit off. I take it for granted the management of our little journal is no exception to the rule, and that there is no danger of your "running down." There is always something new in our business, and most of the old ideas will bear repeating, if for no other reason than for comparison.

About seven years ago I ordered plants enough to set about an acre of ground, and I have been in the business ever since. I know of no reason why I should not be in it the remainder of my life. I can conceive of nothing better for a man in his declining years. I am a good ways from that point yet, but I have had enough experience to convince me that the strawberry grower should never change his vocation. It is not always plain sailing, but what other business is devoid of trouble? Let the strawberry grower's motto be "better berries and more of them." Blight and other fungous diseases, grubs, drought, floods and late frosts—all are mere incidents by the way, and should cause but temporary discouragement at the most.

The past season was the worst one for grubs that I ever experienced. They gave us trouble in both the new and the old beds. While we will have about eight acres to pick over the coming season there is practically not more than six acres of vines.

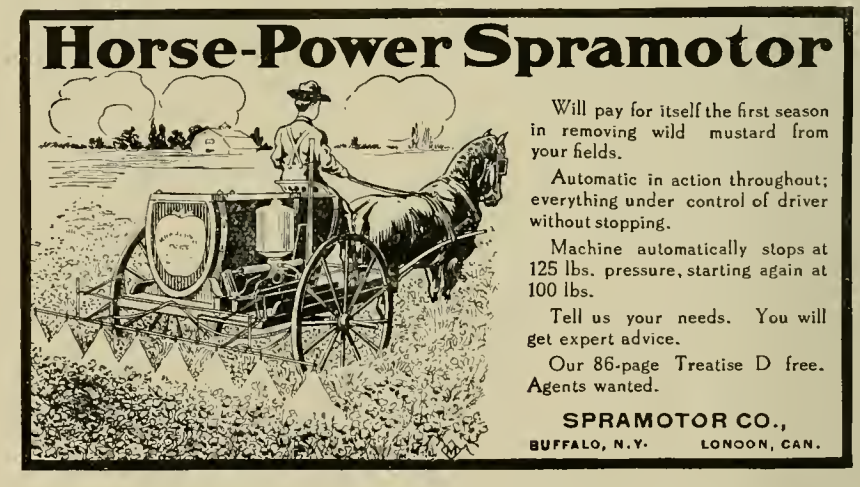
If some of our methods will be of interest to your readers I shall be glad to detail them. I have learned that advice that is good for soils in some other parts of the country does not always do for the black loam of the corn belt. When I read of the difficulty that some of the fruit men and farmers have in getting a sufficient quantity of stable manure, I wish they had the opportunity that exists here and in many central Illinois localities. Residents in our village usually are obliged to hire some one to haul the manure away from their stables, and sometimes the parties hauling it have difficulty in finding a place to put it. Farm land about here would be benefited by having the manure applied to it, no doubt, but when the agriculturalist can raise from seventy-five to one hundred bushels of corn per acre on a clover sod, he isn't going to put in much time hauling manure in the winter time.

Mason County, Ill.

Certainly our readers will be glad to know more about the methods of a man who grows eight acres of strawberries in the corn-belt of Illinois, and we hope Mr. Nicholls will give them the benefit of his experience.

We can't help trying to imagine what those corn-belt farmers would get in the way of corn yields if they did use their barnyard manure in conjunction with their crop-rotation plan. Certain it is that if they can raise from seventy-five to one hundred bushels of corn to the acre without it, they could raise from one hundred to one hundred and forty or fifty bushels as a result of the proper use of this manure. No man is ever so rich that he can afford to throw away his wealth. No more is land so fertile that it can be cropped continuously without replenishment. And the soil robber is the worst of all robbers; for "he who steals my purse steals trash," but he who robs the land destroys the heritage of posterity and leaves the world poor indeed.—Editor Strawberry.

The best forks bear this label
TRUE TEMPER
They Cost No More
A Good Fork must be formed on correct lines for the special work it has to do. And it must "hang" just right feel handy, and work easily.
* * *
True Temper forks are as perfect as the science of mechanics and skill of workmen can produce.
They must prove true in quality, construction, "hang" and temper under severe tests and inspections before they are allowed to wear the True Temper label — the label that appears in this advertisement.
They are by far the best made.
Ask your Dealers to let you see the True Temper line.
* * *
It includes Hay Forks, Manure Forks, Spading Forks, Barn Forks, Header Forks, — every known kind of good fork, as well as Hoes, Rakes, Weeders, Hooks and all other Farm and Garden Hand-Tools—
"The best tools you have ever bought at the same prices you have always paid."
* * *
Write us today for our FREE BOOK, Tools and Their Uses." It tells how to save time and money on your work.
AMERICAN FORK AND HOE CO., 345 Am. Trust Bldg., CLEVELAND, OHIO.


Horse-Power Spramotor
Will pay for itself the first season in removing wild mustard from your fields.
Automatic in action throughout; everything under control of driver without stopping.
Machine automatically stops at 125 lbs. pressure, starting again at 100 lbs.
Tell us your needs. You will get expert advice.
Our 86-page Treatise D free. Agents wanted.
SPRAMOTOR CO.,
BUFFALO, N.Y. LONDON, CAN.

FRANK E. BEATTY'S STRAWBERRY FIELD AT COVINGTON, IND.

Yield per Acre, About 800 24-quart Cases—Thoroughbred Plants Properly Mated, Ideal Soil and Thorough Cultural Methods Did It

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter IV—In Which is Shown that There Are Many Things for the Amateur to Learn

SPRING came on in all her glory and radiance; soft rains and fructifying suns made the landscape rich and exquisitely beautiful with bursting plant life, and greensward and flaming flower vied one with the other for beauty's palm. Out in the strawberry field things were fairly booming; I could almost see from day to day the advance of the plants, and they presented such a scene of beauty as only a well-managed strawberry bed may do in early springtime, when the plants are pushing their glossy-green foliage up through the opening in the mulch to meet the sun. Every morning found me early in that field; scarcely waiting to fasten the last button before making a bee-line for the patch to get a look at my pets and discover what wonderful transformations had been made over night.

The plants that had been staked the night before always received my first attention. By placing a stake at the side of a plant and marking the height of the plant on the stake, I was enabled to tell the exact growth made by the plant during the night, and by repeating this in the morning, the growth of the day was recorded.

During the winter evenings I had spent long hours in study and had learned many important things regarding plant life. I had learned that there was sex in plants; had memorized the analyses of different kinds of fertilizers; had come to know the effect of different kinds of plant food upon the plants and their value in crop-production, and had come to know the importance of thorough cultivation. I also had learned that though good soil, well supplied with humus and a balanced plant food, was quite essential, yet only about 5 per cent of the general composition of the plant was made from the ingredients of the soil, and that 95 per cent was contributed by elements contained in the air. While digging through my meagre horticultural library one evening I discovered that the sun was good for more things than merely to start the sweat on a fellow's brow, when I read the statement that more than four hundred million millions—to put it in figures, 400,000,000,000,000—sun waves beat upon a plant every second. That set me to thinking harder than ever, and I decided right then and there that if I got as busy as nature was and did as much pushing as she did pulling, something would surely start moving in old Indiana along the Wabash.

"I can't find anything in the literature I have in hand that enlightens me at all upon the subject of the proper mating of pistillate plants," I said one day to my wife, "so I am going to make experiments on my own hook along that line." And I took a large number of plants composed of different varieties of both pistillates and bisexuals that I had ordered from a plant grower whose specialty was propagating from selected mother plants, and set them in rows side by side, mating different pistillates with different bisexuals. I also set certain bisexuals alone and, in another plot, set these same bisexuals alongside of other bisexuals to determine whether or not the fruiting power of bisexuals could be increased in this manner—that is, whether the close proximity of one bisexual to another bisexual influenced each in any degree as does the mating of pistillates with a bisexual. In a future instalment the results of those experiments will be given.

By the time these experimental plots were set, and several more acres for next year's fruiting, my two acres of plants set the previous spring were opening their flowers faster than a man can think. I now could easily tell the difference between the bisexuals and pistillates, and I was pleased to find that through some kind providence I had been so directed as to have selected a sufficient number of rows of bisexuals, properly distributed through my patch, to pollenize the pistillate varieties. I had not repeated the disastrous mistake of the previous season, and the knowledge of this fact set me fairly afire with joy and enthusiasm, and the news I carried to my wife was vastly different from that which just one year before I had taken to her, when I had been compelled to admit failure as a result of neglect to set bisexuals along with my Crescents and Warfields.

I never shall forget the day I first realized that success had crowned my work. I hastened to the house and in my joy grabbed my wife and swung her dancing about the kitchen. "It's a wise man," I

The Maule Seed Book FOR 1907

contains 63 Specialties in Vegetables, 69 in Flowers, besides everything else good, old or new, worth growing.

You need it. It is free to all sending me their address on a postal.

Wm. Henry Maule 1753 Filbert Street Philadelphia, Pa.

GOOD SEEDS CHEAP

BEST EVER GROWN

A wonderful big catalog Full of engravings of every Variety, with prices lower than other dealers'. Oldest reliable seed grower in America. No old seed. All fresh. They will grow or will refund money. **FREE**

Big Lot Extra Packages Free with Every Order.

Send yours and your neighbor's address.

D. H. SHUMWAY, Rockford, Illinois.

"BEATS ALL"

VICK'S

GARDEN AND FLORAL GUIDE FOR 1907 FREE.

"OUR BEST SEED CATALOGUE"

JAMES VICK'S SONS

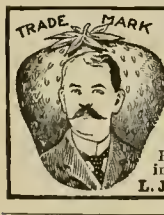
521 MAIN ST. ROCHESTER, N.Y.

"Golden Gate" Strawberry

Seven berries made a quart. It won $23 on 7 quarts at Mass. Horticultural Society in 1906.

PAN-AMERICAN STRAWBERRY set in May will produce as much fruit the following Aug., Sept. and Oct. as any variety in the spring and will sell for 50 cents per quart by the crate. Send for circular.

S. H. WARREN, Weston, Mass.



BERRY PLANTS

We are headquarters for plants of the new "Oswego" strawberry and 50 other best new and old varieties. Also the "Plum Farmer" raspberry and other desirable kinds of Raspberries, Blackberries and other Fruit Plants, etc. 23 years experience. Highest awards at World's Fair. We invite correspondence. Catalog free.

L. J. Farmer, Box 732, Pulaski, N. Y.

Let ME Quote YOU a Price

On my full line of famous Split Hickory Vehicles. I sell direct from factory on 30 days' Free Trial and 2-year guarantee.

30 Days' FREE Trial.

I Save you 30 to 50% in price

Write for big free Buggy Book, finer than ever this year 125 styles Vehicles and full line high-grade harness shown. Don't buy until you get my book and prices.

H. C. PHELPS, Pres.

Ohio Carriage Mfg. Co., Station 40 Cincinnati, Ohio.

said in my renewed confidence, "that never makes the same mistake twice. Our two acres of plants are mated all right and they are loaded with bloom, so look out for those big berries this time instead of buttons—we've got the bird in the hand this time sure!"

And we certainly did. Those vines literally were covered with big red fellows. The first picking filled three twenty-four quart cases, and I loaded them up and headed for the home dealer's who had agreed to sell my berries on a 10-per-cent commission basis. The little boy with his first pair of red-topped boots wasn't a comparison to me that day. Those three cases went like red lemonade at the county fair and at 15 cents a box, two boxes for a quarter. And so did the next picking; but the third day sales began to lag. Covington was a small town only, with four market berry growers, and I quickly discovered that I had made a mistake in depending upon that market for the sale of fruit, when I ought to have arranged with dealers in other towns to handle it.

I at once wrote a fancy grocer at Indianapolis, telling him about my fine berries, and by return mail came a letter asking for an immediate shipment, and saying that if the berries were as fine as I had indicated, he would be able to sell ten or twelve cases every day. I at once packed with great care five or six cases, and sent them to him. The distance was seventy-two miles and there was no changes en route. I had such boundless confidence that my berries would please this dealer and his customers that I did not wait to hear from him, but packed twelve cases more and sent them to the railway station the next day. In fact, I had no time to lose. The berries were ripening by the bushel and had to be disposed of at once.

Just as the train was due to arrive, I went to the postoffice, and was delighted to receive a postal card from the dealer. "Of course," I thought, "this is an order for more strawberries." But my joy was short-lived. The postal card read: "Your berries are choice, but not fancy; don't ship any more!"

Dear reader, need I try to tell you of my feelings at that moment? I know I need not, but am sure that you will appreciate them and sympathize with me in that moment of disappointment; for few of us pass through life without having a shock of that sort some time.

Well, there I was with twelve cases of fine berries at the station ready to be loaded and the train pulling in. And back at the farm were two acres more of the beautiful fruit ripening faster than they could be gathered. I was not long in deciding what to do. Running to the station as fast as my legs could take me, I arrived just in time to see my twelve cases of fruit going into the express car, and the impatient locomotive bell announced that the train was just to pull

OLDS' WHITE OHIO POTATOES

WHITE EARLY OHIO

An Ohio with a White Skin

Nothing equals the old reliable Early Ohio for quick, compact growth, smooth, symmetrical shape and fine quality. White Ohio is identical (although a better yielder) with the **white color,** demanded now in most markets. Henry Field, the Iowa seedsman, grew 4,000 bushels White Ohios on 8 acres, Red River seed.

Olds' Red River White Ohios, grown in the cold northwest, can't be excelled for vigor and early maturity. We have equally choice Red River stock of Six Weeks, Acme, Triumph and Early Ohio. Also 20 other varieties, best Wisconsin grown, including White Victor, Early Roser, Noroton Beauty, Gold Coin, Pat's Choice, Raleigh, Carman, etc.

BIG STOCK, LOW PRICES

Will sell in pounds, barrels or car loads. Get our prices. Drop postal today for **88 Page Seed Catalog,** Potatoes, Corn, Oats, Barley, Alfalfa, Clover Seed, Garden Seeds, Flower Seeds, Tools and Poultry Supplies.

L. L. OLDS SEED CO.,
Drawer N, Clinton, Wis.

Seeds That Hustle

Plant Our Northern-Grown Seeds

They are hardy, vigorous, prolific, and mature quick, because they are grown in our short, northern summers, on new, healthy land. They begin hustling the minute they are in the ground, keep at it, and mature crops while the lazy southern seed is getting started. Our new, 150 page catalog, tells all about them and our **Big Cash Club Offer.** Mailed free, if ordered quick.

DARLING & BEAHAN,
409 Michigan St., Petoskey, Mich.

Peach Trees

fine, stocky, hardy, grown on the bank of Lake Erie; two miles from any peach orchard, free of borers and all diseases. Large stock of **Apple, Peach, Pear, Plum, Cherry, Etc. Headquarters for ORNAMENTAL TREES, Shrubs, Roses, Plants, Vines, Bulbs, Seeds. Over 50 acres of Hardy Roses, none better grown.** 44 greenhouses of **Everblooming Roses, Palms, Ferns, Ficus, Geraniums, Etc.** Mail size postpaid, safe arrival and satisfaction guaranteed, larger by express or freight. **Direct deal will insure you the best and save you money. Try it.** Valuable 168-page Catalogue **FREE.** Correspondence solicited. 53 years, 1200 acres.

THE STORRS & HARRISON CO.,
Box 406, PAINESVILLE, OHIO.

TREES THAT GROW

Apples 4c, Peach 5c, Plums 12c, Cherries 15c. Best quality good bearers, grafted stock, not seedlings. Concord Grapes 2c. Forest Tree Seedlings $1.00 per 1,000 up. We pay the freight. We have a complete line of Vegetable, Flower and Farm Seeds. Our large illustrated catalog free.

GERMAN NURSERIES & SEED HOUSE
CARL SONDEREGGER, Prop.

GERMAN NURSERIES,
Box 101, BEATRICE, Neb.

450,000 TREES

200 varieties. Also **Grapes, Small Fruits etc.** Best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. LEWIS ROESCH, Fredonia, N. Y.

out. "Give me a ticket to Indianapolis," I cried to the agent, "and please telephone my wife that I was obliged to go, and to use her own judgment in disposing of the ripening fruit until my return." And just as the rapidly moving train swept out of the station I swung aboard, resolved to know what the trouble was at all hazards. I could not sit still on the train, and my mind was full of questionings as to what could have been wrong with the berries I had shipped the day before. But soon I was in Indianapolis and there I saw my berries taken from the car and followed the express wagon to the store, but told no one who I was.

While the expressman was unloading the berries, I paced nervously up and down in front of the fine establishment. Soon one of the clerks came out and began to remove the lids from the cases. Such a sight met my eyes as made my heart sink with disappointment and chagrin! Boxes that two hours before were packed level with the top were now less than half full. I called the proprietor out, told him who I was and of my amazement and disappointment at what I had witnessed. He assured me that the same thing had occurred with the previous day's shipment, and the first box I lifted told the reason why—I had made my boxes with tacks and the jar of the car had broken the bottom of each one loose, letting it down on one side!

"You should have a box machine and make your own boxes with wire staples," said the dealer. "It's a shame to have such fine large berries as these mangled in such a manner."

"That's a good suggestion," I replied, "but rather late to act upon at this late day. You do the best you can with this shipment." And I left him to take the train home, reflecting as I rode along as to which was the greater disappointment—a mistake that made the crop a failure, or a big crop and a big blunder at marketing time?

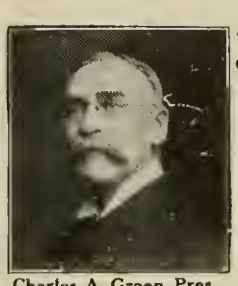
(Continued in March Number)

What One Woman Did

By Mrs. J. A. Holmes

I HAVE been an interested reader of The Strawberry for the past year, and for the encouragement of other women situated as I am, will tell you something of my experience and ultimate success in raising strawberries.

In the spring of 1905 I ordered some plants and as soon as I received them they were set out on good land, using commercial fertilizer only, as I wished to avoid all the weeds possible. I had plants enough to set a little less than seven rods of land and the plants lived quite well and soon began to grow, and then the hard work began, for some weeds and grass came in, but by hard and persistent effort I kept my little field clean, and as a re-


Charles A. Green, Pres.

30 Years' Experience In Fruit Growing

Shall I tell you about it, and how to make a fruit garden? See free book as offered below.

50 Apple, Peach or Plum Trees for $2.50

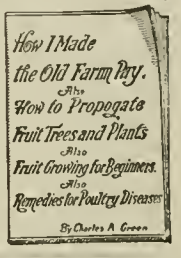
This Book Free For 3 Names

Larger trees of apple, pear, peach and quince at live and let live prices. Bargains in all sizes of apple, peach and plum trees. Grapevines, berry bushes, asparagus roots and ornamental shrubs and trees our specialty.

Charles A. Green

Has a national reputation for honest labeling, grading and packing. Send for Green's Free Fruit Guide and Catalog, also for sample of Green's Big Fruit Magazine. When you send for these add the name and address of three fruit growers and we will present you with C. A. Green's book telling of 30 years growing fruit. See cut of cover.

GREEN'S NURSERY CO., Rochester, N. Y



SEEDS THAT GROW! If you want the Best Seeds that can be grown, —as proved by thousands of tests at the Largest Trial Grounds in America, you should read

Burpee's Farm Annual for 1907,—

"The Leading American Seed Catalog."

A handsome book of 200 pages with beautiful half-tone illustrations from photographs, it **tells the plain truth!** Among other important Novelties for 1907, six pages are devoted to two unique "NEW CREATIONS," in which nature has surpassed herself. These are the most wonderful advances, over existing types, that have ever been known in any vegetable. Their discovery will be worth many thousands of dollars annually to American gardeners.

☞If you can appreciate **Quality in Seeds**, and are willing to pay a fair price, **write to-day** (a postal card will do) and you will receive our Complete Catalog by return mail.

W. ATLEE BURPEE & CO., Seed Growers, PHILADELPHIA, PA.

RASPBERRIES Large assortment of good strong plants of Red, Black and Purple varieties.

Eaton, Ruby, King, Columbian, Cumberland, Etc.

BLACKBERRIES Root-cutting plants; 14 varieties, including Ward, Mersereau, Rathbun, Eldorado—4 of the best varieties grown

Fruit Trees—all kinds. Grapes, Currants, Gooseberries, Asparagus, Rhubarb and Horseradish roots. Roses, etc.

Garden Seeds of all kinds—pure, fresh and reliable.

Catalogue Now Ready, Giving Full Directions as to How to Plant, Cultivate and Care for the Above Products

We can save you money, and guarantee satisfaction. Established 1890. 370 acres.

WRITE TODAY F R FREE CATALOGUE

Jackson County Nurseries, - - Bosky Dell, Illinois.

SEEDS **$1.50 Worth to Test Only 10 Cents**

I want you to try my Superior Seeds. One Trial will make a Customer. I will mail one Full Packet each of the following 15 Grand New Sorts for only 10 cts. These would cost at least $1.50 elsewhere.

BEET, Perfected Red Turnip, earliest, best.
CABBAGE, Winter Header, sure header, fine.
CARROT, Perfected Half Long, best table sort.
CELERY, Winter Giant, large, crisp, good.
CUCUMBER, Family Favorite, favorite sort.
LETTUCE, Crisp as Ice, heads early, tender.
MUSK MELON, Luscious Gem, best grown.
WATERMELON, Bell's Early, extra fine.
ONION, Prizetaker, wt. 3 lbs. 1000 bush. per acre.
PARSNIP, White Sugar, long, smooth, sweet.
RADISH, White Icicle, long, crisp, tender, best.
TOMATO, Earliest in World, large, smooth, fine.
TURNIP, Sweetest German, sweet, large.
Flower Seeds, 500 sorts mixed, large packet.
Sweet Peas, ½ oz. California Giants Grand Mxd.
Catalogue and **Check for 10 cts.** free with order.

☞ This 10 cts. returned on first 25c. order.

J. J. BELL, Deposit, N. Y.

800,000 Asparagus Roots One and two year old must be sold as they are on rented land. All thrifty and healthy. Prices low. Send for catalog of Trees, Plants, Vines, California Privet, Garden Tools, Spraying Mixtures, Pumps, etc. ARTHUR J. COLLINS, Box 415, Moorestown, N. J.

ward for my labor I had as fine a lot of plants as anyone could wish to see.

Well, the plants wintered finely, and what a pretty sight they were at blossoming time, and how anxiously I watched them all through their season of growth! It was then that I began to realize that my labor was indeed about to have its full reward, for such berries I never before had seen. They grew until it seemed they could be no larger, and then kept right on growing; and such a beautiful color, so rich and red that it was a delight to look at them.

Up to this time I had given but little thought about how or where I would market my berries, but a bright thought came to me, and I packed a box of Samples and sent it to the proprietor of the principal store in our little village with a request that he exhibit them for a time and then eat them for his supper.

Well now, I tell you, that plan worked, for in a short time orders came rushing in over the farm telephone for more berries than I could possibly supply even had my patch been many times larger.

My boxes I filled rounding full, and that with the quality of the berries made a striking contrast to the average lots that were offered for sale at the same time. To make a long story short, I picked 340 full quart boxes, and as I sold for twelve and one-half cents per box it is easy for The Strawberry readers to see I had quite a tidy little sum to my account, and it is perhaps needless to say that I shall try to enlarge my bed from year to year. And I wish to say that what I have done, can be done by other women whose lot in life is to live on a farm.

Dryden, Me.

THE reason the big strawberries are always on the top of the box is because they were picked last and had a longer time to grow, according to a very thoughtful and considerate exchange.

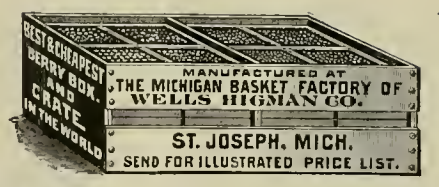
One Way to Advance Horticulture

ORLANDO HARRISON, who is one of the most extensive nurserymen in the United States, also enjoys the triple distinction of being president of both the American Association of Nurserymen and of the Maryland Society and mayor of his home town, Berlin, Md. He had the pleasure as mayor of welcoming to his city the horticulturists of his state at their recent annual meeting, and in the course of his address he said something that ought to sink deep into the minds of people everywhere. We quote:

"We the tillers of the soil of the state of Maryland, produce about thirty-five million dollars annually. I claim that any state that produces so much wealth by means of its farmers and gardeners should be entitled to a building in the great central city of the state, which should be known as the Horticultural Hall. I ask here today that some son of Maryland donate a plot of land for this purpose and ask the state to erect a building for the farmers, truckers and fruit growers and centralize various office buildings of the state that are located in Baltimore City in one, which will be an economy to the state and give the tillers of the soil an opportunity to put their products on exhibition in our principal city continually. Let us show what can be grown in this grand old state of Maryland."

The horticultural possibilities of nearly every state in the Union are beyond estimate. We have not begun to scratch the surface of things as yet—where we produce dimes now we can produce thousands of dollars. There's millions in the soil at our feet if only we will "dig" for it. Why should a Maryland man, or a Michigan man, or an Illinois man, go about looking for pastures new when right at home, without a cent for railroad fare and without disturbing the old-home relations, so dear to him and his family, there are opportunities that show a pay streak of gold with every spadeful of earth? Think of these things. If every state followed President and Mayor Har-

Established in 1869


BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT THE MICHIGAN BASKET FACTORY OF WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

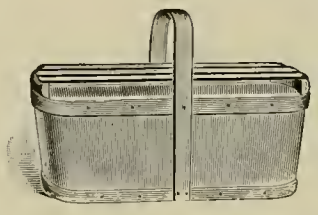
Experience Counts

Headquarters For

BERRY BOXES

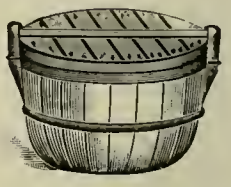
Peach and Grape Baskets

Also Melon Baskets



Fruit shipped in our packages insures highest prices.
Order boxes now and make up at your leisure.
Write us for Berry Box Machine.

Illustrated Price List Free.



Wells, Higman Company

Box 10, ST. JOSEPH, MICH.

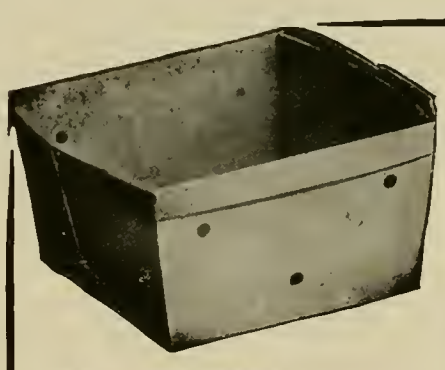
Save Money by Making Up Your Own Fruit Boxes and Baskets

ON

"ADVANCE" FOOT POWER WIRE STAPLING MACHINE

A Time-Tested, Reliable and Fully Guaranteed Machine
Write for prices and circulars

Mfg. by SARANAC MACHINE CO.,
2731 Main Street ST. JOSEPH, MICH.



The BASKET with the RIM

That is the distinguishing feature of the

WAX LINED PAPER BERRY BASKET

The height of Clean, Odorless, Tasteless, Pure and Perfect Basket Perfection

IF YOU ARE A BERRY GROWER you want our Basket and we want your name

MULLEN BROS. PAPER COMPANY

SEND FOR FREE SAMPLE Dept. B St. Joseph, Mich.

rison's suggestions, these eastern and middle sections of the country would bloom and blossom like the rose.

The Home Strawberry Bed

THE many beautiful pictures of family strawberry beds we have received of late prompts us to write this article, and the letters which accompany these photographs are so full of cheer and enthusiasm that we are led to repeat what often has been said before. A home in the country, or a suburban home; we may say a home anywhere with soil enough for a flower bed, can be made more homelike, more beautiful, more readily self-supporting, and more appreciated by the addition of a strawberry bed. The photo-engravings of home gardens shown in this issue of The Strawberry tell the story in a more convincing manner than words can do. And how often these little family strawberry beds make a turning-point in a boy's life. Just the other day we received a letter from a Strawberry reader saying that when he was a boy of only ten years his grandfather gave him a piece of land to set in strawberries, and with a little help and a lot of encouragement from his grandpa this boy grew from a small boy with a small berry patch to a muscular and intellectual man, and his first position was that of head gardener. From there he stepped over upon his own farm, bought by honestly earned money, and is now a popular berry and vegetable grower.

Who can estimate the true value of that boy's first berry patch and the encouragement he received from his grandfather? Maybe that boy or girl of yours is at the cross-roads of life, wondering which way to turn. In one direction is the smoke stacks, the hustling, bustling, smoky city with its numberless temptations that are so apt to lead innocent, pure-minded country youths into sin and an unhappy, rather than a blissful life. The other direction points to the country with its smokeless, pure atmosphere, good associates, crystal water, boundless opportunities to deal with loving Nature in all her glory. There one may make more money, be more independent, eat more wholesome and purer food than can any millionaire in the great city.

While country folks are regaling themselves with luscious strawberries and berries of all kinds, fresh from the vines, and with fully ripened fruit of all kinds just from the trees, the city folks are eating what little of these goodies they can afford that are picked half-green and shipped and reshipped until scarcely eatable.

Now don't spend your long winter evenings trying to formulate an excuse for not having a generous strawberry bed for the family's use. Settle the question right now, and in the morning after you get the chores done and have eaten your breakfast of good fresh sausage, fried eggs which were laid just the day before, hot biscuits and good coffee, with real cream from real cows, (but no strawberries)—and don't forget to ask the blessing—go out to the garden and stake off a piece of ground and mark on the stakes in big black letters: "This piece of ground is for strawberries." Now cover it lightly with well-decayed manure, spreading it evenly over the ground. This will take about an hour and all the preparation necessary is done until spring. This evening, instead of going down to the store and giving your opinion as to how the government ought to be run, or the kind of gun Roosevelt should use to shoot bear, spend your time in looking over the catalogues to which the nurserymen have devoted so much time and given so much thought for your benefit, and select your plants, choosing several varieties from the earliest to the latest so that you will have strawberries three meals every day, winter and summer. Do this tonight and you will have rich, fresh strawberries, and all you want; but keep on postponing it until tomorrow, and you will eat old dried prunes!

IN THE FAMILY STRAWBERRY BED OF H. PIESINGER, LE SEUER, MINN.

WHAT is easily done may be overdone;
What is difficult to do is in demand;
What once has been done may be done again,
And you are the fellow that can do it.
"Impossible" is un-American.

ALABAMA horticulturists are anticipating a veritable feast of reason and flow of soul at Montgomery February 6-7, at which place and time the annual meeting of the State Horticultural Society will be held. There has been a wonderful advance all along the line of horticultural development in that great state during the last few years, and the good work seems to grow in value and importance as it moves forward. W. F. Heikes of Huntsville is president, and R. S. Mackintosh, the well-known horticulturist of the Experiment Station of that state, is the secretary of the Alabama State Society. The latter's address is Auburn, Ala. The strawberry is rapidly taking a leading place in the horticulture of the state and should be given due prominence on the program.

Working for the Ideal

By L. E. Job

IN January, 1906 I ordered four hundred strawberry plants, and a month later I subscribed for The Strawberry. By the time the plants arrived in April I had learned how best to prepare the bed and set the plants.

After the work of preparing the bed and setting the plants was completed, cultivation commenced in earnest, and all through the summer months not one thing was left undone that was recommended in The Strawberry. Not a weed was allowed to grow, the ground was cultivated as soon after a rain as it would work well, and after the ideal rows were formed not a runner was permitted to grow.

Early in the morning on Thanksgiving

THE BEAUTIFUL HOME GROUNDS OF H. PIESINGER, LE SEUER, MINN.

day these fine plants were put to bed under a nice clean blanket of straw, and as I sit by my warm fire these long winter evenings visions of big, luscious strawberries come before me. And I feel that these visions will be a reality next June, if Jack Frost will stay away and the weather is seasonable.

I had much advice and many suggestions from my friends as to how I should care for my strawberry bed, but I always told them that I was going according to instructions in The Strawberry and could not change my way of doing things. Why these friends made suggestions was always rather puzzling to me, because they invariably said my bed was the finest one they ever saw.

I am now planning to set another bed in the spring and I expect to give it the same careful attention that I have given this year's bed.

I am a rural mail carrier, and as my salary for this work is rather meager, I shall expect my strawberry beds to greatly help my yearly income, and I feel that I shall not be disappointed.

Wellsville, Kan.

A Long Strawberry Season

By Samuel Cooper

I HAVE been interested in the articles in The Strawberry giving personal experiences in strawberry growing, and thought that my last year's experience might be of interest to some of your readers.

Plants did not come through the winter very well in this section; they were thinned by the "heaving out" of the weaker plants, in some cases so many dying that the fields were plowed up in the spring. The fields however, which had been well mulched in the fall came out fairly well, and blossomed heavily, but about May 15 a hard frost came, killing many of the blossoms. Enough of mine escaped to furnish a fair crop of extra-fine berries which sold at 15 cents per quart for the first two or three pickings, then at 12 cents after grading out the smaller ones, which sold at 10 cents per quart for canning berries; so, on the whole, results were not unsatisfactory.

My last picking of the spring crop was July 12. The last of July I commenced picking the fall crop for our own table use, and August 3 made the first shipment to Buffalo. From that time I shipped two or three times a week until October 10, when we had the big snow storm, followed by a hard freeze, which I thought would surely finish them.

October 17 was warm and plesant and, as some berries were wanted for a wedding in town, I got the pickers out in the hope that they might find perhaps five or six quarts of berries protected by the leaves from the snow and frost. They picked thirty-five quarts that graded eighteen quarts of fancy berries. I thought that this would surely be the last picking, but October 24 we picked thirty-seven quarts, eighteen quarts of which I shipped to the Broezel House in Buffalo; the balance were sold in the local market. After that we had a freeze that froze all the green berries hard. The vines were quite well filled with green fruit, and if the weather had been as usual I could have picked for two weeks longer.

I have been raising fall berries for seven years. On four different years they furnished us with a shortcake on election day, and one year I picked four quarts on the 13th of November. I find that if the frost gets my spring berries I am still sure of strawberries from my own fields for from eighty to one hundred days in the year.

Delevan, N. Y.

The Famous Angle Lamp

WHEN we tell you that The Angle Lamp will light your home *better, cheaper* and *more satisfactory* than gas, electricity, gasoline, acetylene or any other light, we mean *better, cheaper* and *more satisfactory* and are ready to back these statements with *proof*. For our lamp is constructed on a new principle of oil lighting (patented by us) which completely does away with the smoke, odor and bother of the ordinary lamp and yet makes "The Angle" so much cheaper to burn than even the ordinary lamp that it PAYS FOR ITSELF.

Better Than Gasoline.

Because *all* gasoline lights use mantles. And *all* mantle lights are intense, glaring, penetrating. That is why one *conscientious* American manufacturer tries to give his mantle at *least a little* of the soft yellow tone which makes the kerosene light. And absolutely refuses to make a "pure-white" mantle. For he knows what all students of lighting methods know—that the "pure-white" mantle creates a light so intense, so penetrating, that like the X-Ray it pierces the retina of the eye, soon causing blindness. And yet some people, because the very *penetrating qualities* enable them to read at a long distance as from the fixtures, still use such eye-destroying lights.

Then, too, gasoline is one of the most dangerous illuminants; while the constant breaking of the delicate mantles makes it expensive far beyond the cost of the fuel.

The Angle Lamp, on the other hand, while giving a light of the finest quality known to science, is absolutely safe, requires little attention and never gets out of order. Mr. E. C. Parmelee, Highlands, N. J., sums it up briefly in a recent letter, "My Angle Lamps," he says, "have saved 20 times their cost in oil. burners, chimneys and cuss words."

Better Than Acetylene.

"The Acetylene Light" says Dr. David T. Day, Chief of the mining and mineral resources division of the U. S. Geological Survey, "is *even more glaring* indoor than the arc light outdoors." Dr. Day places Acetylene as the worst of all artifical lights for home use—more penetrating and more harmful than the mantle lights.

But Acetylene has a worse feature, even than this—the danger. It is one of the most explosive and probably the most penetrating gases known to science,—so penetrating is it that it sifts through even the water with which all acetylene generator manufacturers *presume* to seal the gas-storage tanks. And don't think a large quantity need sift through to cause trouble. For any mixture of acetylene and air from one part of gas to three of air, up to *one part gas* to *40 parts* of *air* may explode!

How strong the contrast between this dangerous system of which you never can be sure and the safe, clean Angle Lamp, which, because of its double fount construction and "angle" flame, absolutely cannot explode. And how strong the contrast between the intense, eye-straining acetylene light and the soft, warm, restful Angle Lamp!

Better Than Ordinary Lamps.

"The oil lamp," says Dr. Day, in another part of the article above referred to, "yellow, steady, fairly soft, is still the supreme reading light in general use." This splendid *kerosene quality* of light forms the only ground for comparisons between our lamp and the old fashioned kind. Because The Angle Lamp is an entirely new principle of oil lighting which, while generating a far better and more brilliant light than the old style lamp, has completely done away with all the smoke, odor and bother of the old style lamp.

The Angle Lamp is lighted and extinguished as easily as gas. It requires filling only once or twice a week, which may be done with absolute safety while the lamp is lighted. It never smokes or gives the slightest odor whether the light is turned at full height or turned low like gas. It is absolutely safe.

And yet the very features which make The Angle Lamp the most convenient light ever invented by giving perfect combustion of oil, make it also the cheapest. *For one quart of oil burns 10 hours.* Figure what that means in economy!

Now if you have read this advertisement closely you understand why we offer to prove what a completely satisfactory light The Angle Lamp is by sending any lamp listed in our catalog "54" on

30 DAYS' TRIAL. And you will understand why such people as ex-Pres. Cleveland, the Rockefellers, Carnegies, etc., who care nothing about the economical features of the Angle Lamp have chosen THIS oil-burning lamp for lighting their homes and estates in preference to gas, electricity, acetylene or any other system. The Angle Lamp will please you as it does thousands of others. Write for our catalog 54, listing 32 varieties from $1.80 up, and giving you information about *all* lighting methods that would cost you hundreds of dollars to collect.

THE ANGLE MFG. COMPANY, 78-80 MURRAY STREET, NEW YORK.

EVERYBODY engaged in horticulture knows "Biggle's Books," but the latest from that source will command more attention than any of its predecessors, at least this will be true in the case of those who have orchards that they care about. The title of this one is "Biggle's Orchard Book", and though its pages are small and only 144 in number, they are so full of meat that this little book, with its beautiful illustrations and helpful directions and suggestions, is more valuable than some we know of that would weigh ten times as much. All of Biggle's books are published by Wilmer Atkinson, editor of Farm Journal, Philadelphia, and this fact alone is a guarantee of quality.

PAGE goods are good goods; every man in the country who ever used Page woven-wire fencing will tell you that. The fact is brought freshly to mind by the receipt of a copy of a handsome little paper published by this enterprising house in which we note some splendid testimonials to the quality and endurance of the product of this company. Page has stood for honesty and square dealing all through, and each year strengthens its hold on public confidence.

Out of a Woman Strawberry Grower's Note Book

By Mrs. Emma Hey

I HAVE been in this business in one way or another for about twelve years and have learned that there are a good many very essential things about it outside of the actual growing of the berries. It is one thing to grow a fine crop of berries. It is quite another thing to dispose of them at a profit. What disposition is to be made of them is perhaps the very first point to be settled, as many other things about it depend largely upon this. We would not do quite the same with berries that we intended to place on the counter of a grocery as we would if we sold them from a wagon. On the counter the appearance of the boxes would be of prime importance and we think it would pay for the extra labor spent in topping them. By topping I simply mean turning the stem-end down, which greatly improves the looks of the box. For our wagons we do not think this would pay. Our berries are not placed beside others which look either better or worse. We always have sold good berries, therefore our reputation is good and the berries sell on that. We have always instructed our pickers to put an extra large berry in the bottom rather than on top of the box. As our berries are neither kept nor shipped, we can grow a good quality of fruit, allowing them to ripen fully on the vines.

With growing berries to be shipped we have had no experience whatever, but we are sure it would be an entirely different proposition. We are nearly two miles from the business portion of a town of 10,000 people, and sell direct to customers. We have two wagons, each manned with a first-class salesman and a good lively boy. A third wagon keeps these two supplied with berries throughout the forenoon. These wagons make a daily trip over the same route throughout the season.

After experimenting on this place and under these circumstances and our present methods of cultivation for four years, we have decided that two acres of strawberries is both the most and the least we should grow. If the crop is an average one it is just what our wagons can dispose of comfortably and get a good price, and should the yield be heavy they would not be utterly swamped. When we get so we can grow as many berries as we do now on less land, we shall cut down the acreage, but we must have berries enough to make it pay the pickers to come out there from town to pick them.

We are satisfied that it is much better to sell 10,000 boxes at a shilling a box than to sell 20,000 at 8 cents per box. We are also sure that the nearer we come to raising fancy berries the better it is for us, and it is our constant aim to grow better and better berries, though I must admit that thus far we have succeeded in growing more and more berries instead.

My first experience in growing and selling berries was when my father grew two rows across a town lot and sold $35 worth of them, beside having all we wanted for our own use in a family of six. Our next step was when the town lot had been left behind and we grew one-sixth of an acre from which we sold one year 2,000 boxes. They averaged us 10 cents a box. For the past four years we have had nearly three acres in berries. The circumstances have in many respects been adverse. We bought a run-down

MRS. HEY WITH HER HOUSE PLANTS

place that had been rented many years and was very weedy. The only preparation for the strawberries we could make was to plow under a crop of clover in the fall which had been sown the previous spring. While our crops have been fairly good (we have had to depend upon this same patch all the while) it goes without saying that we have not realized $200 from a sixth of an acre!

Next spring we expect to make a fresh start for better berries. We shall plant two acres. The ground to be used has grown vegetables for several seasons. Last year it grew beans chiefly. As soon as these were harvested it was covered with rotten barnyard manure, and just when the ground began to freeze it was plowed. In the spring it will be plowed again and then disked several times and finally planked with a weighted plank. After this it will be gone over with a fine-tooth harrow, setting the same very shallow, as this is done to prevent capilarity only. The ground will then be ready for the plants.

We usually have grown our own plants and always expect to in the future. We set out a propagating bed, setting into it good strong plants four feet by three feet. We put them in a good place and keep them clean throughout the season. We prefer to have them rather thin, but we never have done anything other than keeping the rows from mixing in the way of thinning. When we are ready to plant, about May 1, we dig enough plants for a half-day's planting. We dig with a five-tined fork, shake them out and take to a shed where they are sorted and trimmed, and the blossom taken out where possible.

BEAUTIFUL FARM HOME OF THE HEYS NEAR DIXON, ILL.

Only first-class plants with large bunches of roots are used These are tied in bunches of twenty-five, labeled and set into a tub containing a few inches of water. In this they are taken to the field. Here they are carried during the setting in a paper-lined and covered basket. A cloth gunny sack or paper are equally good for cover, so they keep the sun from wilting the plants. The plants are not dropped ahead but as they are planted.

The rows are marked with a hand-made marker three and one-half feet apart. Plants are set two feet apart. We aim to set them firmly in the ground with roots well spread and at the same depth they stood in the propagating bed.

We are growing at present five varieties—Warfield, Bederwood, Splendid, Dunlap and Staples. The first three named are our main crop. We are trying the Dunlap and hoping it may prove good enough to take the places of both Splendid and Bederwood. Splendid with us is a very good berry when it is good, but it has spells of being bad "and when it's bad it's horrid." Bederwood is a splendid fertilizer, as it blooms both early and late. It always has a smooth well-developed berry of excellent flavor, but it is light in color, therefore not desirable for canning.

Staples is a very sweet dark berry, but it is a shy bearer. Of these we have only one row which is for our own use. We have tried many other varieties but have discarded them all.

Heretofore we have planted our rows as follows: one Bederwood; two Warfield; one Splendid. Next year we shall plant Dunlap in the place of Bederwood, every other row.

It would be impossible to tell how often we cultivate or hoe. We hoe frequently enough to keep them clean. It is a great saving of labor to hoe when the weeds are small. We cultivate enough to keep a constant dust mulch—after every rain and at least once a week if it doesn't rain. We use a twelve-tooth Planet Jr. and a roller runner cutter if the row gets more than a foot wide.

We have always had a narrow-matted row and tried to keep it thin, but in the next bed we are going to test the hedge-row in a small way. We pick off all blossoms the first year. In the fall we mulch with oat straw or rye straw. We do this earlier than we used to do. We cover the rows very lightly, putting it thickly between rows. In the spring we uncover enough so the plants can grow through the straw. We never have been obliged to spray strawberries, although at times we have had some rust on Bederwood rows.

We never have removed mulch and cultivated in spring, but I am of the opinion it is a fine thing to do.

From the time of removing the mulch until the harvest our beds have received no attention, but when that time comes

FOUR FREE
4 HARDY BLIZZARD BELT EVERGREENS
FREE
If you are not already acquainted with us we want to grasp your hand across the miles and introduce you to the The Gardner Nursery Company, Osage, Iowa. We are growers of Hardy "Blizzard Belt" nursery stock. We are Gardners by name and "Gardeners" by occupation. We grow Hardy Trees. That is our business. We have been at it for nearly 40 years and are proud of our record. We expect to continue growing Hardy nursery stock for another 40 years and maybe longer. We grow our "Blizzard Belt" Evergreens in ten million lots. To advertise them and prove that they are healthy, well rooted and vigorous, we offer to send four fine sample trees 3 years old, free to a limited number of property owners. Mailing expense 5 cents, which send or not as you wish. A postal will bring them. Last year we distributed 500,000 of these sample evergreens and gained thousands of new friends. This year we have
RESERVED 600,000 TREES
for this free advertising distribution and if you want your share of them write at once for they will go fast. W. H. Gibboney, Mandan, North Dakota, writes: "Please accept thanks for the sample evergreens. They are doing fine." This is but a sample of thousands of letters. Our catalog containing 64 colored plates of our Hardy "Blizzard Belt" Fruits, Ornamentals, Evergreens, etc., with a mine of valuable information for fruit growers, is free for the asking. Write today.
The Gardner Nursery Company, 33 Nursery Ave., Osage, Iowa.

You Can Buy and Lay ROOFING
Gordon, VanTine Flintcoated Fireproof Rubber
50% BELOW DEALERS' PRICES
We'll sell you, if you want roofing, better roofing than you can buy anywhere else—Flintcoated, Fireproof Rubber Roofing Sell you direct at half what your local dealer will charge you for ordinary roofing—half what shingles will cost you, for we ship right from our factory to you. Send you a Free Roof Book on our roofing, telling why it's
Rustproof and Practically Fireproof if you'll only send us a postal. Send you a sample so you can test it—try to tear it—pound it—smell it to see that there's no tar in it to burn or melt—try it with hot coals—try it with acid—try it any way to satisfy yourself.
All You Need is a Hammer to put it on your house, barn or outhouses. We send you with every order all the nails, metal caps and cement you need to put it on. Also 8 sq. ft. for laps. And it's the easiest roofing to put on made today.
It Lasts a Lifetime and will keep your buildings dry, warm and substantial in appearance. Won't rust out like steel roofing. This isn't an ordinary roofing. We make it from a special process material with such heavy machinery that when it's finished there's absolutely no "wear-out" to it. We tell you in our Roof Book all about the process—the pressure it gets—the flintcoating—the acidproof soaking—the weatherproofing that we give it. It makes 26 per cent saving on insurance. It's
Sold Only Direct to the man who uses it, so you save 50 per cent, which on other roofing goes into your local dealer's, the jobber's and the wholesaler's profits. You'll see from what we tell you in our
Free Roofing Book just why it will pay you to use our roofing. We guarantee safe, prompt delivery everywhere in the United States. We save you 50 per cent, freight included. We ship to you from Kansas City, Minneapolis, Chicago or Davenport. This saves on freight. Write or send catalog requests only to Davenport and let us save you—dollar for dollar—HALF.
Write today.
Less Than Half What Shingles Cost You
PRICE Per Square 108 sq. feet
1-Ply.....$1.41 per Roll
2-Ply..... 1.96 per Roll
3-Ply ..... 2.29 per Roll
GORDON, VAN TINE & CO. Largest Mill in America Station D37, DAVENPORT, IOWA
Grand Catalog of Factory Prices on Sash, Doors, Building Material and Woodwork sent free also.

SUPERLATIVE RASPBERRY

WILL LEAD ALL OTHER VARIETIES COMMERCIALLY

Improved Strain From Puget Sound Achieves Sweeping Triumph Wherever Planted---Larger, Richer and More Prolific---Conceded the Best Red Raspberry Ever Introduced

THE Improved Superlative Red Raspberry, one of the wonderful products from the Puget Sound country—the real home of the red raspberry—is without doubt the most important commercial success achieved in berry-growing for years. As a berry to eat with cream and sugar, it is matchless. Its superior size and appearance and delicious taste make it the best market seller, and growers are obtaining a premium price for it. Its shipping qualities are not excelled by any other red raspberry. At the Lewis and Clark Exposition the Superlative was awarded the Gold Medal, the highest award, over all other red raspberries. This new variety is being substituted for all others, wherever introduced, and growers are plowing out old strains to make room for this more profitable variety.

The Improved Superlative Raspberry is controlled exclusively by the Chas. H. Lilly Co., the largest and best-known plant and seed house in the West. The following interesting extracts from letters written by some of the most extensive growers in the country describe its qualities:

BEST SHIPPER OF ALL

"Hang on the canes well—Are remarkably firm and prove to be fine shippers--Aremuch larger than any other variety. Am convined they will prove larger producers and better shippers than any other variety. Will be good seller. I have no plants for sale."—D. F. Sexton, President Snohomish County Horticultural Association and President of the Snohomish Valley Growers' Association.

WHAT LARGEST GROWER SAYS

The Snohomish Berry and Fruit Co. have one of, if not the largest raspberry fields in the world. They say: "Any new item of value in the raspberry from a commercial standpoint is of material value to us. We have several varieties under observation. From our experience with the Superlative we will confine our future plantings to this variety. The berry is very large, nearly double that of other varieties, and yields 50 per cent. heavier. Shipping quality is good. Sample crates shipped East attracted much attention. The merits of the Superlative will undoubtedly transform the raspberry industry. No plants for sale at any price, as we need all we can produce to extend our planting."—Snohomish Berry & Fruit Co., H. S. Wright, Manager.

PRACTICALLY INSECT PROOF

"Superlative is acme of perfection in the raspberry family, excelling all others, and my 50 years of experience covers many varieties. Has hardy and healthy growth. Fruit the largest of any variety. Quality the very best. Very prolific. Core is very small. Flesh very deep. Seeds very small. Believe it will become the best shipper of all and command the highest price. Fruit does not fall from plant when ripe. Leaves are very large and corrugated, making it practically insect proof. Canes mature early. Have no plants for sale at any price."—Wm. Bennison, a Snohomish County Horticultural authority, and of wide experience both in England and America.

"Do not think I ever saw their equal, and I am an old berry raiser."—F. Walden, Fruit Editor of The Ranch.

"Superlative raspberries shipped in open crates without refrigeration as far as Kalispell, Montana. Very satisfactory results."—Snohomish Valley Fruit Growers' Association, per W. T. Dalson, Shipper.

DISCARDS ALL FOR SUPERLATIVE

"Superlative will revolutionize the raspberry industry in the commercial berry sections. In all my experience, testing practically every new raspberry, I have never had a variety to equal the Superlative. Have discarded all others for this. It outyields any berry of my experience."—J. F. Littooy, Horticultural Inspector Snohomish County.

WILL THRIVE ANYWHERE IN U. S.

THE fact is well known that berry roots from the Puget Sound country grow better all over the United States than those from anywhere else, but the Superlative will prove this with even added emphasis. Invest in a few Superlative roots now; it will be the leading variety in a few seasons; every one who sees the fruit wants it; your profits will return a hundred-fold. The endorsement of the Chas. H. Lilly Co. is a sufficient guarantee that the Improved Superlative Red Raspberry is all that is claimed.

OFFER OPEN TO EVERY GROWER

IT is the desire of the Chas. H. Lilly Co. that the distribution of the Improved Superlative Raspberry shall be as widespread as possible in order that individual growers all over the United States and Canada may be able to make a start with this grand variety, thereby making a far-reaching and perpetual advertisement for the firm. Owing to the great value and limited number obtainable, it has been necessary to fix a price of $1 each for the roots. Large orders are not solicited, and under the circumstances no reduction can be made in such cases. Improved methods of packing have been perfected whereby the Chas. H. Lilly Co. ship the roots so thoroughly protected that they reach the most distant points across the continent in perfect planting condition.

STANDS MOST SEVERE CLIMATE

The hardiness of the Superlative raspberry is conclusive, as it stands the severe climate of Eastern Canada. Wherever introduced it has enthused the growers. It is very difficult to obtain plants of the improved strain. The Chas. H. Lilly Co. of Seattle, have exclusive sale of the Superlative, and the quantity is limited.

ITS SPLENDID CHARACTERISTICS

Cane is smooth—grows erect—matures early—vigorous, strong, healthy—practically thornless.

Leaves thick, dark green, deeply corrugated or wrinkled—practically insect proof, as red spiders or mites cannot travel on the leaf—leaf distinct from any other raspberry.

Fruit one to one and one-half inches long—very prolific—ripens simultaneously with earlier varieties and continues to end of season with latest varieties—lobes deep—cores small—seeds small and masticated easily—flavor sub-acid, aromatic perceptibly sweeter than other favorite varieties no mustiness color delicate crimson—texture, firm—shipping quality best.

Order the Superlative Now

In ordering use the attached coupon, writing name and address plainly:

Cut this out and mail to the

CHAS. H. LILLY CO.

SEATTLE, WASH.

Enclosed find $..... for which send me ... Superlative Red Raspberry roots from the Improved Strain, at $1.00 each, postpaid. Also send free, postpaid, your complete new Seed and Plant Catalogue.

Name.....

Address.....

S 2

"NEW IDEA FOR FARMER'S WIVES"

A woman on the farm is always looking for ways and means to make every penny count. She appreciates that a "penny saved is a penny earned," and we are glad in this issue of The Strawberry that we can direct her to some money saving plans that are new and worthy of her consideration.

This idea was suggested to us from reading an advertisement which appears in this issue of The Strawberry, and which was sent to us by Crofts & Reed, a large Chicago manufacturing firm who manufacture and sell direct to the consumer groceries and household supplies, such as teas, coffees, soaps, baking powders, spices, extracts, washing powders, toilet preparations, perfumes, etc. Buying these daily household necessities direct from the maker at about one-half the prices the farmer's wife usually pays for them, seems to us a new idea which she ought to take advantage of, because of the great saving this method of buying affords.

There is no reason why groceries should not be purchased direct from the maker, thus saving all middlemen's profits, just as satisfactorily as the one hundred and one other things used on the farm which are being bought direct from the maker today.

It is needless for us to tell you the saving that is derived in buying farm machinery and farm supplies direct from the maker, and the opportunity of buying groceries in the same manner is certainly a good one.

For example, take baking powder for which you are now paying 25 cents per can at retail, you can get direct from Crofts & Reed for 12 1-2 cents per can just the same quantity. Laundry soap that costs you 5 cents a bar can be had for 2 1-2 cents a bar, and so throughout their entire list the regular retail prices are cut one-half.

This is only one of their many saving plans. Another plan affords an opportunity whereby the housewife can furnish her home throughout with the same money she is now spending for groceries and get the groceries besides. For instance, with $10 worth of groceries at the prices you are now paying you can get a Couch, Morris Chair, Rocking Chair, Kitchen Cabinet, or your selection from nearly 1,000 other useful articles worth $10, such as shown in their advertisement on cover page 3.

We might tell you of all their plans, but you had better turn to the advertisement and then send for the book which explains them clearly.

We want to impress you with the fact that this firm and their goods are absolutely dependable. Don't get the idea because these products can be bought at such a big saving on their "factory to family" plan that they are not equal in quality to any sold by dealers. To prove this these manufacturers offer to send goods without asking you to pay a cent of money until they have been received and proved absolutely satisfaciory in every respect at your hands. In fact, they tell us that they will send the goods and let you use them for thirty days before you need to send the money. If they are found satisfactory after this test, of course you will be only too glad and willing to pay for them at their low cost.

We particularly suggest that our readers send for their Big Premium Book and free sample of toilet soap. You'll be surprised at the saving and values they offer. Here is a new idea for the economical farmer's wife which will help her to make her expenditures for household supplies go twice as far, or make the same money buy both groceries and the furniture. Be sure to address CROFTS & REED, Dept. 596, Austin Ave,, Chicago, Illinois, when writing.

our troubles begin. Everything else about berry growing is a pleasure; but getting them picked is a soul-harrowing job. I can get along pretty well with women and girls, but oh the boys! Each year we think we have discovered where the trouble lies and by making changes hope to better things in future, but each year after the biggest picking is over we have the same old crop of annoyances. We always have the boy whose mother says it doesn't pay any more, the sick boy and the tired boy; the boy for whom the weather is too hot, too cold or too wet; also the boy who has to go for his summer vacation and the boy who has a steady job which he must take at once. Individually I like them and they are my friends, but collectively, as Dooley says, "they are my inimies."

My job is in the "office." I inspect the berries, punch the pickers' tickets and pack the cases. Mr. Hey is his own foreman and all goes well enough apparently as long as he doesn't leave the patch; but the moment he is out of sight the visiting, the throwing of berries, the skipping of rows, etc., begins.

I am close enough to see and hear, but not close enough to prevent. I hope I have been explicit enough so that all may see wherein we err and that some fellow Strawberry reader may set us right.

Dixon, Ill.

Mrs. Hey is exactly right in her position that it is better to sell 10,000 quarts of berries at a shilling than to sell twice the number for a lower price. It doesn't cost any more to pick a quart of big fancy berries than it does a quart of little, knotty, ill-shaped things. In fact, it costs less to handle fancy berries than it does a poor grade, beside being easier to secure pickers to do the work when the fruit is large and fills the boxes quickly. Mrs. Hey's method of mating pistillates with two bisexuals is the correct way and her cultural methods are ideal, but plowing under the manure just at freezing time could have been improved by plowing earlier and sowing to rye, as it isn't good practice to leave the surface of the soil exposed to the elements during the winter any more than it is in the summer time. F. E. B.

Fertilizing the Strawberry

By D. I. Duncan

THE strawberry plant can be grown on any soil that will produce a good corn crop, but a rich, light loam, free from drouth, is preferable. If only a heavy clay soil is available, its mechanical condition will be improved by the use of lime and subsoiling. While plenty of moisture is required for the plants, they will not flourish if their roots are in a cold, sodden soil. Very low-lying places should be avoided, since there is in such conditions considerable danger from frost.

Correct fertilization is as important as soil selection, since some seemingly impossible soils have been made to produce heavy crops of select berries. It goes without saying that after the soil has been selected it will be well plowed, and then with harrow and roller it will be put in the best possible tilth. The period of preparatory growth of the plant before bearing is but one year, and the crop that may be obtained is largely dependent upon the strength and vigor of the plant which has been acquired during this period. Hence it is desirable that the soil in which the plants are set should be abundantly supplied with mineral elements—potash and phosphoric acid. Therefore, about 500 pounds per acre of a fertilizer analyzing 2 per cent nitrogen, 7 per cent phosphoric acid, and 10 per cent potash should be applied and well worked into the soil previous to the setting of the plants. In the spring an application of 100 pounds per acre of nitrate of soda should be worked in between the rows as soon as the first growth appears. This top dressing is to be made the first season and also the second, but should never be applied after the bloom is on, since it will encourage a too late setting of the fruit, and a too

WHEN YOU BUY an incubator be sure you get one you can depend on. Every incubator will hatch well sometimes—when all outside conditions are favorable, but

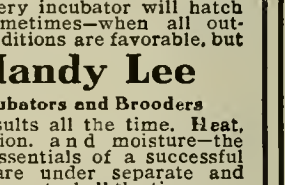
Mandy Lee

Incubators and Brooders

give results all the time. Heat, ventilation, and moisture—the three essentials of a successful hatch—are under separate and absolute control all the time.

There is no guesswork about the "Mandy Lee" Incubator. It don't make any difference what outside conditions are, you can always make "hatching" conditions in the egg chamber.

If you want to learn the hows and whys Send for Catalog. Also ask about "Mandy Lee" Brooders, the direct contact heat kind that furnish heat in a natural way.



Geo. H. Lee Co.
Dept. 51.
Omaha, Neb.

1907 Catalog FREE Describes and prices 45 varieties fancy poultry and eggs.
S. A. HUMMEL, Box 13, Freeport, Illinois

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block. Syracuse, N. Y.

A Bunch of Thoroughbreds

Kellogg's Thoroughbred Plants

Beat Them All

For twenty years they have held the World's Highest Fruiting Record.

THOSE GREAT CROPS OF STRAWBERRIES YOU READ SO MUCH ABOUT ARE GROWN FROM KELLOGG'S STRAIN OF THOROUGHBRED PLANTS

The real test of strawberry plants is the quantity and quality of berries they produce.

When we say that Kellogg's *beat them all* we only repeat what our old customers say. This is the kind of letters we get:

Nothing But Kellogg's Will Do Him

Fred Larson of Clarinda, Iowa, says: "For two years past I have purchased plants from you and notwithstanding the late frost we had last year, the Kellogg plants came out victorious, and as usual gave splendid returns, and with us it is 'Kellogg's and only Kellogg's' forever."

Sold Entire Crop at 20 cents a Quart

Francis Ball, Jenkintown, Pa. "I am growing your pedigree strawberries, and they certainly show their high breeding. I supplied the Bellevue Stratford Hotel, Philadelphia, with berries from your plants at $6.40 per bushel crate for the entire season."

Eight Thousand Quarts to the Acre

E. W. Mitchell, Puxico, Mo. "For several years I have been growing your plants, and last year on a piece of ground that measured one-fourth of an acre I produced more than 2,000 quarts of berries, and the best of it is, many of them measured five and a half inches and some of them six inches. Everybody said they were the biggest and finest berries they ever saw. I want more Kellogg's in 1907."

Our Customers Help to Push a Good Thing Along

H. Hume, Mandeville, Ark. "I have just moved on a farm, and am thinking of putting in one acre of strawberries. The reason I am writing you is that every one with whom I have conversed on the subject have, without exception, recommended the R. M. Kellogg Co. as the best and fairest firm to deal with."

More Than 600 Quarts From 500 Plants

Rufus Brogden, Jamestown, N. Y. "The season for strawberries in this section was very poor; because of the severe drouth many growers realized about half a crop and small berries at that. But my 500 Kellogg plants produced more than 600 quarts of big fine No. 1 berries, and I attribute my success to good strong plants. It is easy for an amateur to grow big crops with your plants and your system. Hope you will be able to furnish me with 1,000 more plants for the spring of 1907."

15,000 Quarts From Two Acres Last Year

George S. Pomeroy, Jonesville, Mich. "I am pleased to inform you that I got 15,000 quarts of berries from my two acres of Kellogg plants this season. You will recall that when I visited the Kellogg farms I told you that in 1903 I picked 10,000 quarts from one and a quarter acres, and in the fall of the same year sold 800 quarts from the same patch, and realized a big price for them, too."

Sold 5,700 Quarts From Three-Fourths of an Acre

W. W. Thomas, Ashland, Ohio, writes: "The Kellogg plants that fruited for me this season went through several severe frosts during blooming time, but with all this great handicap to start with I sold more than 5,700 quarts from three-fourths of an acre and they brought me $475. I received about 50 per cent more for my fruit than the growers got who used common plants. The 3,000 plants I got from you this spring are growing 'to beat the band.'"

A Visit to Kellogg Farms Convinced Him

W. O. Kuhlman, Auburn, Ind. "I wish to thank you for the very kind way in which I was entertained while visiting your farms. I now know that what you state in your catalogue represents the actual facts, and that plants ordered from the Kellogg Company can be depended on. Your hundred acres of strawberry plants with mile-long rows, as clean as a whistle, was a sight worth going many miles to see."

It's Better Than You Claim

F. C. Vollmer, Cicero, N. Y. "After reading your 'Great Crops of Strawberries' I had your farms pictured in my mind, but my visit to you proves that the real thing beats what you say about it. I am an experienced grower of strawberries and know clean, healthy plants when I see them, and I can best express my feelings by saying that this special trip from New York for the sole purpose of seeing your farms is the best investment I ever made."

Kellogg's Sell at a Premium of 33 1-3 per cent

Truman Hayes, North Argyle, N. Y. "Last year I had one acre of Kellogg plants in fruit, and they were so fine that one dealer engaged the entire crop at 12 cents a quart, while other berries sold for 8 cents. I don't know another man who got more than 8 cents a quart. Last spring I set another patch and used your plants, setting them so that each hill would be about 12 inches apart, and each hill has built up from six to eight crowns. In all my advertising I say: 'My berries are grown on Kellogg's Thoroughbred Plants.'"

More than 16,000 Customers in 1906

Just as well satisfied as these, and growers who have used our plants from the beginning are the most enthusiastic of all.

Why should you be satisfied with anything but the best? If you have not received our "*Great Crops of Strawberries and How to Grow Them*" send us your name at once. If you have it, send us your order now so that we may reserve the varieties you select. Address

R. M. KELLOGG COMPANY

118 PORTAGE AVENUE — THREE RIVERS, MICHIGAN

extensive growth of vines and runners. When a commercial fertilizer analyzing as the one recommended here is not obtainable, the various materials can be purchased and the mixture made on the farm.

A large amount of fertilizers can be profitably used on the strawberry if applied at the proper season. The best times are in the fall or early spring, before planting, and again in late summer or early fall, around the plants, and again in the winter or early spring. A point to be remembered is, never sow fertilizers in too close proximity to the crown of the plant in warm weather, while they are in the green growing state, and never sow it on them in winter unless the leaves are dry. In the South, when the plants keep green all winter, the fertilizers must be divided between the rows and around the plants, preferably just before a rain.

To the shipper color, early ripening and solid fruit are considered as well as the yield, and it is to assist in securing these that the fertilizers so rich in potash are recommended.

Selma, Ind.

Our correspondent has made many valuable suggestions, especially on the application of a well-balanced commercial fertilizer; but we would suggest that in our experience the best time to apply commercial fertilizer is just after the ground has been broken up and then work it in thoroughly before setting plants. Commercial fertilizer, like stable manure, cannot be used by plants until it first decomposes and the mineral matter is absorbed by the soil grains. His suggestions upon nitrate of soda are excellent. However, we never have found it necessary to cultivate the nitrate of soda into the soil.

Merely sprinkle it along the rows of the plants. The rains will dissolve it and carry it down into the soil where the plants will use it immediately. We mention this so that growers who do not cultivate their fruiting bed, will find it possible to use the soda as well as those who do cultivate.

We would caution growers against using lime except in very light applications. Wood ashes are preferable. The latter contain 30 per cent of lime and in such form as does not over-stimulate the soil as does the pure slaked lime.—Editor Strawberry.

Berry-Growing in Washington

FROM F. E. Corliss of North Yakima, Wash., comes a letter to The Strawberry which serves to emphasize the importance of quality in fruit, and incidentally contains a cheerful word about this magazine. He says: "Here is my renewal for The Stawberry, and I send $1.25, as I wish the paper sent to a friend who is very enthusiastic concerning strawberry culture. I am very glad to renew, for your magazine is the best thing to keep a man in the right road of anything I ever came across

"My plants did finely in 1906. I had less than a quarter of an acre and I took off of it $125 in cash. I fooled them all in this town. I put the first berries on the market (Excelsior, May 7) beating Kenewick and Hood River districts, and got 35 cents a quart—'skinned' the homegrowers by fully ten days. More than that, I got from 3 to 5 cents more a quart than any other grower in this valley. Berries went as low as three for a quarter, and some sold for $1.25 a crate, but I did not sell a berry for less than twelve and a half cents a quart.

"It was comical, the surprised way in which the people looked at me and my fruit. I had just kept still about my berries, and nobody knew who Corliss was until I came out with my beautiful fruit; and say, the other fellows felt queer. I followed The Strawberry way as nearly as I knew how. My berries were all packed in an attractive way; every box and case was stamped, and I started out as near right as I could. The result is I already have made a good reputation. Next season I shall have a half-acre of fruit to turn off, and hope to set two acres more to plants."

EXTRA sets of The Strawberry for 1906 are now available, as several persons have offered them in response to a notice appearing in the January issue. The cost for each set of twelve numbers is just what we pay for them—$2—plus postage, or a total of $2.25. If you wish to secure a set, write at once.

Planet Jr. Tools are guaranteed

—the best-working, easiest-running, longest-lasting, most reliable farm and garden tools. Designed by a practical farmer. Do the work quickly, right, without injury to plants Made of the very best materials, with good honest workmanship.

No. 17 Planet Jr Single Wheel Hoe, Cultivator and Plow. One of the handiest implements ever made for gardening. All cultivating parts are of high-carbon steel to keep keen edge. Specially designed to work extremely close to plants without injury. One man easily does the work of three to six.

Planet Jr 12-tooth Harrow, Cultivator and Pulverizer is a splendid tool, for berry-growers and market gardeners—invaluable wherever fine, close work is needed. The twelve chisel-shaped teeth and the pulverizer leave ground in the finest possible condition. Saves many times its cost, and turns hard work for three men into easy and better work for one.

A Planet Jr farm and garden tool for every need—Hill- and Drill-Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding Cultivators, Harrows and Orchard- and Beet-Cultivators—45 kinds in all.

Even if you have a Planet Jr write now for our new *1907 Catalogue*, showing photographs of successful gardening at all stages, also the interesting new models.

S. L. Allen & Co.
Box 11060, Philadelphia, Pa.

IRON AGE (Improved Robbins)
Potato Planter

The only planter that does absolutely perfect work—no misses or doubles—and gives you a uniform "stand" from the entire crop. No waste of land, no waste of seed, no waste of time and labor.

Write for the **New 1907 Iron Age Book—Free**—and find out about this and all other Iron Age Potato Machinery and Farm Implements.

BATEMAN MFG. CO., Box 543, Grenloch, N. J.

The Acme Harrow

Well pulverized soil is the most important requisite of a good seed bed. No field—no matter how rich—is well prepared for seed unless the ground has been thoroughly pulverized.

Does the old fashioned spike or spring toothed harrow do that? It does not. It **does** tear up the grass, weeds and trash the plow buried, and which should stay buried.

What you need is the **ACME All Steel Riding Harrow**—the only harrow built on scientific principles.

Flat steel spurs go ahead of the Acme coulters or teeth, crushing and leveling every clod.

Then the coulters like long plowshares follow, turning the soil both ways and mixing it. When they get through with it the soil is as fine as a Harrow can make it and presents all its food to the seed.

Think how much easier on the team the Acme Harrow is! The old harrow dragged bluntly against the soil. The Acme cuts smoothly through.

Then the Acme is very convenient to move from one field to another, as a lever raises the coulters from the ground. One man can put the harrow in a wagon or sled with ease.

Try the Acme FREE.

The Acme is the lowest priced harrow made and is built to last.

Write for free book, "A Perfect Seed Bed." Written by distinguished agriculturists. A postal to me and it will come.

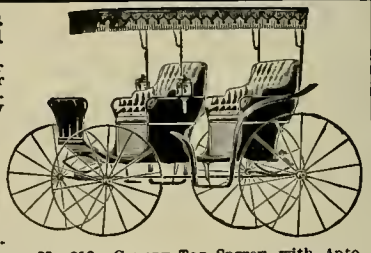
DUANE H. NASH, Box 39, MILLINGTON, N. J.

34 Years Selling Direct

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.

No. 756. Bike Wagon with Fine Wing Dash, Automobile Seat and ⅝ in. Guaranteed Rubber Tires. Price complete, $58.50. As good as sells for $25.00 more

We are the Largest Manufacturers in the World selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large, free catalogue.



No. 313. Canopy Top Surrey with Automobile Style Seats. Price complete, $73.50. As good as sells for $25.00 more.

Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana

Strawberry Plants

Large stock of thrifty, young plants from a strain of prolific fruit bearers. Also Trees, Vines, California Privet, Asparagus Roots, Garden Tools, Spray Pumps, etc. Catalog free. Write.
ARTHUR J. COLLINS, BOX 415
MOORESTOWN, N. J.

EXPERIMENTING TO LEARN BEST METHOD FOR PREPARING SOIL FOR STRAWBERRIES
Potatoes in the Center with Field Peas on Each Side

Intensive Strawberry Culture---Improving Plants by Selection

By Frank E. Beatty

IN the January issue I promised The Strawberry readers an article on plant improvement, and it is my intention to outline fundamental rules that, if closely followed, will result in greatly intensifying the fruiting power of the plants. Before entering into this subject I wish to impress upon the student's mind that a great deal of patience is required. Dealing with plant life, with an aim to improve it, somewhat resembles the work of an inventor. Many mistakes are made which make it necessary to tear down and rebuild. The first thing to do is to get fixed in your mind's eye the results you intend to work for. The inventor always does this and the machine usually is first put together in his head, and after the wheels and different parts are all perfectly adjusted and work perfectly in the mind, he then proceeds to the actual work of realizing his ideal. But seldom it is that the machine ever works so satisfactorily at the outset as it did in his mind, so he again must tear the real machine down and rebuild it both in mind and materially, adjusting and readjusting its parts until perfection is attained.

It is time lost to attempt to improve any variety of strawberry by selection without first knowing what improvement that variety needs. One must, then, first of all study the variety and become well acquainted with its normal characteristics. In this way, both the strong and weak points may be discovered. Then, and not until then, may the work be started with any assurance of progress. In the work with strawberries we find many variations, and where these variations exist there always is a chance for improvement.

When working with a new seedling the first thing to do is to get a uniform type of foliage. Ordinarily this is not difficult. First, look the plants over and select the type which suits your fancy, which of course will be the healthiest and most attractive. Stake all plants possessing the characteristics in foliage you are working for, and propagate from these particular plants, continuing along this line until you have secured a strain of plants of that seedling which will build up a uniform foliage to your liking.

THIS subject is one of the most important the strawberry grower must consider, and yet the work is simple and uniformly successful where the rules are carefully observed. Mr. Beatty has been invited to deliver an address upon this theme before the Michigan Agricultural College February 13, which indicates that its importance is fully appreciated by the scientists in horticulture. The next instalment will deal with the ever interesting and equally important theme, Mating for Pollenation.

When working on standard varieties with an aim to producing a new strain there are four elements to be considered:

(1) A healthy and uniform type of foliage and enough of it successfully to mature all the berries, as well as foliage having tough leaf tissues, which are a great protection against the attacks of fungi.

(2) Ability to build up a heavy crown system.

(3) Ability to produce enough strong progeny to give best results without deterioration in bud forming.

(4) To produce progeny of its own type; those that will retain the same strong characteristics of the mother plant.

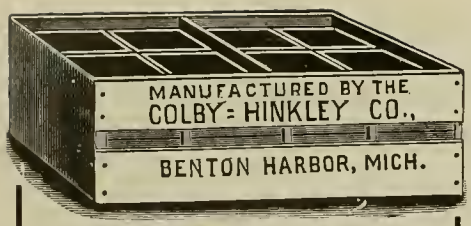
Some varieties will possess one or more of these good points, but will be weak in others, and after learning where the weak points are, we can proceed to eliminate them by selecting from mother plants that score high on these particular points.

For instance, if a variety produces heavily of choice berries and has sufficient foliage of uniform type properly to mature all of its fruit as well as protect the fruit from the sun's rays, but is susceptible to leaf spot, then we should start at once to correct this weakness. A close watch through the entire growing season will reveal the plants which possess the characteristics sought. No matter how susceptible the variety may be to fungous attack, some plants of that same variety may be found which are practically immune to fungi, and it is from these plants the selection should be started. If the work be intelligently done, improvement will be observable after the first selection is made, and by continuing along these lines eventually a new strain of plants, having tough leaf tissues, will be the result.

But we should not stop here. The selection should continue from year to year. No matter how much care has been used, no variety ever will be made so good that it cannot further be improved.

Then there are other varieties that have such a healthy foliage that leaf spot seldom affects it; again, the same variety will produce beautifully formed berries of excellent flavor and good shipping qualities, but does not produce them in sufficient quantities to make it profitable. With such a variety as this, a search should be made for the plants which build up the largest number of crowns, of course considering the physical condition of the plant first.

No matter what characteristic of the variety we are working to improve, the selected mother plants always are numbered and permitted to make at least fifteen runner plants, and the following spring twelve of its progeny are transferred to another plot and given the same number as the mother plant that produced them. The mother plants and her other progeny are left to fruit, which makes it possible to get



BERRY BOXES
BERRY CRATES

In flat or made up. All kinds of

BASKETS

BEST GOODS **RIGHT PRICES**

Send postal card for catalogue

Colby-Hinkley Company
BENTON HARBOR, MICHIGAN

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent

A Free Trial Package is Mailed to Everyone Who Writes

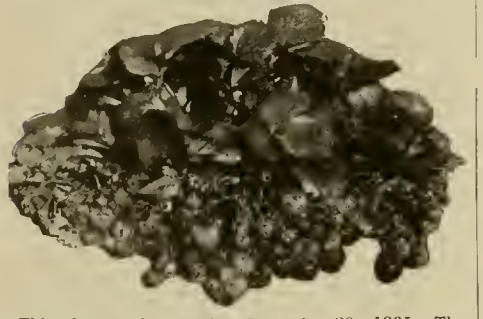
A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 613 North St., Adams, N. Y., and he will send you a free trial package; also color card and full information showing how you can save a good many dollars. Write to-day.

100 LBS. FENCE WIRE, $1.25

No. 14 Gauge Painted Wire Shorts, 100 lbs., $1.25; No. 14 Gauge Galvanized Wire Shorts, 100 lbs., $1.40; Other sizes at proportionate prices. Galvanized Barb Wire 2 and 4 point, per 100 lbs., $2.50; "BB" Galvanized Phone Wire, per 100 lbs., $2.40; Annealed Wire, per 100 lbs., $1.90; Graduated Diamond Mesh Galvanized Fencing, 24 ins. high, per rod, 20c; Galvanized Poultry Netting, per 100 sq. ft., 40c; Indestructible Steel Fence Posts, the best manufactured, each, 35c. Everything in the line of Wire and Fencing for all purposes. Now is the time to buy. These prices are for immediate action. Ask for **Free** 500-page Catalog. No. B. A. 733 quotes lowest prices on staple farm supplies of every kind; also offers furniture and household goods from **Sheriffs' and Receivers' Sales.**

Chicago House Wrecking Co., 35th & Iron Sts., Chicago



This photograph was taken September 20, 1905. The plant is my new seedling named

"AUTUMN"

If was set in the field the first week in June, 1905. If you want strawberries from August until November try "Pan American" and "Autumn." Fall bearers, sure. Plants for sale by **Samuel Cooper, Delevan, N. Y. Circulars Free.**

records of their fruiting power, the type of foliage, and their leaf spot or fungi resisting qualities. And the mother plant that shows the most points of excellence is the one the selection should be continued from, following the same course as before outlined with the twelve progeny which had been transferred to Plot No. 2.

I have given only the starting point of this most interesting part of strawberry growing, and like any other work along the line of improvement there is no end to it. Yet the principles here laid down are to be carried on progressively, with perfect confidence that by this method the results desired are to be achieved.

THE Wisconsin State Horticultural Society will hold its annual convention at Madison February 5, 6 and 7, and a glance at the program reveals an extraordinarily strong and interesting layout of subject-matter. In the small-fruit session M. S. Kellogg will give a "Strawberry Review for 1905-06," in which will be discussed Plant Injury in 1905-06 and Cause, the 1906 Crop and Prices, and Most Profitable Varieties. This will be followed by ten-minute discussions by a half-dozen members, and the whole will without doubt be a clear and comprehensive statement of a situation full of interest and meaning to strawberry folk. The Wisconsin meeting has for years ranked among the most valuable and profitable in the country, and the 1907 convention promises to be no exception to the rule. Secretary Frederic Cranefield, Madison, will furnish all needful information to inquirers.

Marketing the Strawberry Crop

By A. D. Stevens

A FEW years ago we were not satisfied to ship our berries without some way to protect them in the market, so we had a private label printed which was a guarantee that they were of high flavor, fully ripened and honestly packed, and in a few days the grocers that were handling our berries would call at the commission house in the afternoon asking the merchant to set a certain number of S. B. Stevens & Son's berries aside for them the next morning—the crates that had the label on them. The consequence was that the merchant would put a few cents per quart above the average market price and they would say nothing because they could sell them with a guarantee and found ready sale for them at a large price. We have received from $6 to $6.75 for a thirty-two quart crate, and we always are careful to omit the label from any berries that will not bear the test.

It was not many years before the other growers in this section "got on to it" and now nearly all of the best growers have

SAMPLE OF OUR SOAP FREE

Take this sample which we offer you, use it and learn the high quality of Crofts & Reed Products. Just send your name on a postal and a full size cake of fine toilet soap will be mailed you free. You will also get a big book, showing over 1000 Premiums which we give with orders of our Soaps, Tea, Coffee, Baking Powder, Flavorings, Breakfast Food, Perfumes, etc. We ship direct from our factory and thus save all middlemen's profits. This saving you get in premiums. Take advantage of it. Send postal for sample now.

Crofts & Reed, Austin Ave., Dept. 656, Chicago.

Smallwood's Fruit Plants

DEWBERRIES—One of the most profitable crops the small fruit grower can grow.

KENOYER BLACKBERRY—The earliest to ripen and one of the largest blackberries.

Other varieties of Blackberries, Strawberries, Gooseberries, Grape Vines, Pie Plant. **Now is the time to order for spring planting.** Write for Price List and Culture.

T. H. SMALLWOOD, R. 1, Box 5, FT. SCOTT, KAN.

HARDY FRUIT TREES

STRAWBERRY AND RASPBERRY PLANTS VINES, ROSES, BULBS, ETC.

Hardiness means most to Northern fruit growers. **Bargain Price List FREE.**

North Star Plant Farms, Cokato, Minn.

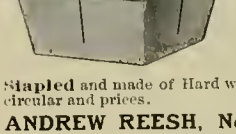
P. S. 10 per cent discount on early replies. Write today for this may not appear again.

WRAGG TREES

From the old, reliable company. Ask for our new catalogue and Special Prices.

Agents Wanted

J. Wragg & Sons Co.,
WAUKEE, IOWA



ANDREW REESH

MANUFACTURER OF BERRY BASKETS AND BERRY CRATES

All sizes of berry baskets from half-pints to the standard quart. **All Machine Made, Bottom Stapled** and made of Hard wood or Basswood. Send for circular and prices.

ANDREW REESH, New Springfield, Ohio

PLYMOUTH ROCK SQUABS

are largest and most prolific. We were first; our birds and methods revolutionized the industry and are widely copied. First send for our **FREE BOOK, "HOW TO MAKE MONEY WITH SQUABS"**

PLYMOUTH ROCK SQUAB CO., 402 Howard Street, Melrose, Mass.

EATON'S FAMOUS POULTRY FOODS

CHICK SCRATCH MASH
LIFE SAVER CLIMAX PERFECTION

Ask your dealer, or write R. D. Eaton Grain & Feed Co., Norwich, N Y. Mention this paper.

their labels, but it is not any infringement on ours, neither does it do us any hurt in the market. We are making it our main aim to grow a high grade of berries and pack them so they will be attractive in the market.

It never paid to top the top boxes and places inferior fruit at the bottom, but the time has come when city people will not pay for inferior fruit, but must have a guarantee of quality, and after a certain brand has proved satisfactory they will insist upon having it at almost any price. So we must have fine berries or go out of business.

We have found one very good way to grow strawberries is to sow rye in the fall and put a light coat of fine manure as a top dressing in the early winter and then plow it under the last of March; then pulverize it finely and set the plants.

We have a field that was a timothy sod and as soon as we had the hay off last July we turned it down and sowed it to rye on September 10 and are going to set it in plants in early April with Pride of Michigan, Dornan, Otto, and New York, and intend to grow them in the double-hedge row system. We expect a bumper crop.

We had a heavy frost last May which nearly destroyed our best bed, as it was on low land and near a swamp. Where we were expecting anywhere from 175 to 200 crates to the acre, we got twenty-five crates, and they were of poor quality.

Bridgeton, N. J.

The White Grub in Quebec

By Chas. S. Moore

THERE is one point in regard to the treatment of soil infected with white grubs which, I believe, has been overlooked by The Strawberry. Possibly it does not apply to Michigan, but from what I gather in reading your valuable little magazine, I doubt if your climate is much less severe than that of southern Quebec. I feel that I can speak with some authority in regard to our friends the enemy, for I have suffered loss at their hands—or rather their mouths—to the tune of about $400, as nearly as I can estimate. In fact, a bed of nearly two acres was all but ruined by them. So you see, I am in the position of the boy who had broken his leg; from the mere fact of his greater sufferings, he felt a certain amount of superiority over his fellows. Now let me point out a few of my mistakes, which may possibly be a warning to others.

Mistake No. 1 was in planting strawberries two years after clover, a crop of corn intervening. In the future I shall plow for at least three consecutive seasons before setting to strawberries, except in the case of the old beds known to be free from the pest. This will give time for every grub to mature and come forth a plundering June-bug, if he were so for-

Williams' Shaving Stick

PERHAPS all your life you have used common soap for shaving, and have never known what it was to shave with a real shaving soap—one made just for shaving. Buy a cake of Williams' Shaving Soap or a Williams' Shaving Stick and see what a comfortable, easy thing shaving can become. There is nothing like it.

"The only kind that won't smart or dry on the face."

Send 2c. stamp for a TRIAL CAKE of Williams' Shaving Soap, or 4c. for a Williams' Shaving Stick, trial size, enough for 50 shaves. Address

THE J. B. WILLIAMS COMPANY
Department A GLASTONBURY, CONN.

Let Me Quote You a Price On a

Chatham

Before You Buy An Incubator.

Gueranteed 5 Years Freight Prepaid

Write today for my Free Book. It will tell you how to make money out of poultry. With Chatham Incubators and Brooders you can start in the poultry business for a very small amount. Chatham Incubators are sold on

84 DAYS' FREE TRIAL

freight prepaid. Guaranteed 5 years. They are tested and known to produce the largest percentage of strong chickens. Our big stock of incubators now ready insures prompt delivery. Write today.

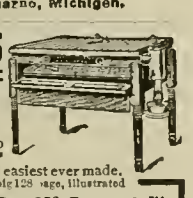
MANSON CAMPBELL,
President Manson Campbell Co., Ltd., 282 Wesson Ave., Detroit, Mich.
If you live west of the Mississippi River, address me Box 282 Topeka, Kan.

30 Days' Free Trial

Michigander Incubator and Brooder

The Michigander has perfect hot water circulation heating system which keeps temperature steady in all parts all the time. No cold corners. No cooking of eggs. Regulates itself. Cannot go wrong. Positively the best incubator on the market. Proper ventilation and sufficient moisture assured. We will give you 30 days' trial of a Michigander, any size. If not satisfactory, return and we will refund your money and pay freight without delay. Factory price, 60-egg machine, $6.75; 110-egg machine, $9.60; 240-egg machine, $16.40. Full line of poultry supplies, bone and clover cutters, etc., at lowest factory prices. Send for big catalogue to-day. KALAMAZOO SUPPLY HOUSE. 741 Lawrence Square, Kalamazoo, Michigan.

240-EGG Incubator $11.75



120 Egg Size, $9.00
60 Egg Size, $7.50

Brooders equally low. Not cheap machines but the famous "Ideal" —guaranteed to be the surest and easiest ever made. Why not save from $5 to $10? Get our big 128 page, illustrated poultry book FREE. J.W. Miller Co., Box 372, Freeport, Ill.

HATCHING TIME IS HERE!
and so is the new
AUTOMATIC BUCKEYE INCUBATOR
OPERATES WITHOUT A THERMOMETER.

All Metal, Fire Proof, Continuous Hatcher. SOLD ON INSTALLMENTS with five years guarantee. Adjusted ready to run when you get it. CATALOGUE FREE.
BUCKEYE INCUBATOR CO., Box 40, Springfield, O.

High Grade Door ONLY **80c**
2-0 x 6-0, All White Pine. Regular Price, $2.00

If you have any use for doors, windows, storm sash, moulding, porch brackets, columns and millwork, for your own buildings, or as contractor, don't buy elsewhere at any price or under any circumstances until you get the Grand Millwork Catalog which makes a clean saving of 50% on any dealer's prices. It makes no difference where you live. If you intend to build, or if you need millwork for any purpose, do not think of buying until you get our estimate. Our goods are high grade as well as wonderfully low in price. Our lumber is first air-dried and then, as an extra precaution, is put through a scientific drying process. Joints are made with heavy hardwood dowel pins, glued with imported glue, pressed together by heavy steam power press. There is no "come apart" to our work.

Door panels have a heavy raise on both sides. The panels are sandpapered on a special machine of our own invention before the door is put together, and the entire is then smoothed with fine-grained sandpaper. We guarantee our goods to be strictly up to the official grade adopted by the Sash, Door & Blind Manufacturers' Association of the Northwest.

We operate the largest mill in the world—163,000 feet of floor space (four acres)—have been in business since 1865—own our timber lands, sawmills and lumber yards. We carry a large stock and can therefore ship promptly. We have no traveling men—sell only for cash. We are the only large manufacturers of sash, doors and blinds selling direct to the consumer. Our prices will astonish you. Don't buy anything in our line until you get our catalog, the grandest woodwork catalog published. It's Free—write for it today. Address

CORDON VAN TINE & CO.
Station C 78 Davenport, Iowa

San Jose Scale

In your orchard? Cooked sulphur and lime used for spraying will save the trees and kill out the pest. The original Eureka Steam Feed Cooker will cook a barrel of any spraying mixture in 40 minutes. Also a barrel of feed in the same time and save ⅓ the feed. Heats water for stock. Requires but little fuel. Saves labor. Tested to 100 lbs. pressure. On market 25 years. Lasts a lifetime. Price, No. 1, with 9 flues, $20.75. Price, No. 2, with 13 flues, $21.75. We especially recommend this No. 2 cooker. Its size makes it popular everywhere and it is probably just what you want. Special No. 3 size, 160 lbs. pressure and will develop 2 horse-power; price, $30.50. Also kettle cookers and other kinds. Also all kinds of sprayers for spraying all kinds of mixtures.

FREE—Our big 408-page Catalogue showing and pricing almost everything used on the farm and in the home. Write for it. KALAMAZOO SUPPLY HOUSE, 742 Lawrence Sq. Kalamazoo, Mich.

BERRY BASKETS AND HALLOCK BOXES

Also Beekeepers' Supplies sold at a reduced price and shipped from Central Michigan. Send for 32-page catalogue free. W. D. SOPER, Jackson, Mich.

tunate as to survive in the soil after three plowings.

Mistake No. 2 was in dressing the corn stubble with manure that had been left in a pile to rot. My practice is to apply manure fresh from the stable for ordinary farm crops; but in this case, I undertook to rot it, in order to render the plant food more available for the strawberries. No doubt this manure proved a fine place for the propagation of young grubs, although we did not notice them at the time it was applied. Possibly they may have been seen and mistaken for maggots (the larvæ of flies) which in their early stages they somewhat resemble.

Mistake No. 3 was in not plowing the corn stubble until spring; and now I will come to the point which I wish to emphasize. In the summer of 1905 I had a small patch, a quarter of an acre, in potatoes — following clover — which I wished to plant to strawberries the following spring. When the potatoes were dug in September, 1906, the soil was found to be badly infested with grubs, from two to eight in a hill, and every potato badly eaten. We dug with forks and were careful to crush every grub found. Having learned (?) that plowing late in the fall was the thing to do with grub-infested land, I put off the plowing of this piece until late in November, when, lo and behold! not a grub was to be seen. Congratulating myself that we had completely exterminated them when the potatoes were dug, I went on with confidence in the spring and planted my strawberries.

To make a long story short, I lost fully one-third of my plants by the depredations of grubs on this patch. Whenever a wilted plant was found the grub was dug up and killed and, owing to the fact that the patch was a small one, we at last cleaned them out and got a good stand of plants.

Now the question is, where were the grubs when I plowed the land late in the fall of 1905? The answer is simple—gone down deep in the soil to hibernate. This is the point which I wish to make: Plow your land in the fall, but do it early enough to catch Mr. Grub near the surface, before he goes down so low that the plow cannot reach him. When digging ditch in late autumn we have found grubs three feet below the surface.

In closing, we might add, for the encouragement of others, that from the few plants left in my two-acre field we picked last summer 900 quarts of fine berries, which sold two for a quarter without any sorting whatever, netting us enough to more than pay the cost of growing, in fact having a neat little balance to the good. These berries were all sold without soliciting an order, in fact, many and many a would-be purchaser was turned away empty handed. People would drive in from neighboring villages and pay us twelve and one-half cents when their own grocers were retailing berries at ten cents,

BROWN'S "Auto-Spray"

DOES THOROUGH WORK QUICKLY AND EASILY

because it has more power than any other hand sprayer made. That also gives it a wider range of usefulness than any other small sprayer. Yet it is the easiest sprayer in the world to operate. *15 seconds'* work at the plunger charges it with enough power to throw the spray for *10 minutes.*

The tank holds three gallons of solution and one of compressed air, and two pumpings discharge the whole contents. Our Auto-Pop Nozzle, controlled by one finger, regulates the spray from a stream to a fine mist.

Conveniently carried over the shoulder by a strap. All working parts of brass, no rusting, no clogging of nozzle, nothing to get out of order or cause trouble. Let us tell you what our customers think of it. We make

ALL SIZES OF SPRAYERS

for all purposes, and guarantee every sprayer to prove satisfactory or money will be refunded. Tell us what you want to accomplish and we will suggest the right style for you to use.

Write for Spraying Calendar, the most complete and authoritative ever published, and a copy of our catalogue. Address

THE E. C. BROWN COMPANY, 61 JAY ST., ROCHESTER, N. Y.

GROWING TOMATOES FOR QUALITY, QUANTITY AND EARLINESS

Is the name of the best booklet ever issued on the subject of tomato culture. It contains 30 pages and illustrations fully describing the Potter method of raising tomatoes. By this method you can have bigger and better fruit and weeks earlier than otherwise. It teaches the secret and science of tomato culture; forcing the fruit by systematic cultivation and pruning. This book is invaluable to every gardener, whether he grows one dozen or one thousand vines.

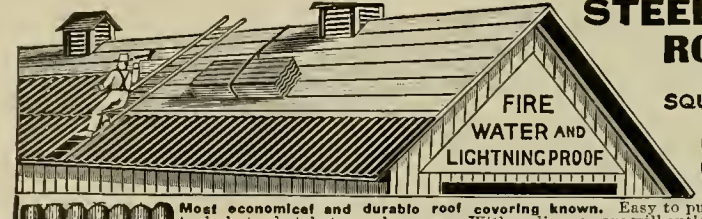
The subjects covered are: History of the Tomato; Its Nature and Habit; Tomato Culture in General; The Potter Method; Plants and Planting; Preparing the Ground; Setting the Plants; Cultivation; Pruning and Staking the Vines; Picking the Fruits, Ripe Tomatoes at Christmas; 40 Tomato Recipes; Best Tomato Seeds,

The information is condensed and to the point—just what every grower wants.

The cut herewith shows one of a large number of vines in my garden this season. Notice that each stalk is loaded with large, perfect fruit from top to bottom. This is the result of my method. It is easy to raise this kind of fruit when you know how. Just send for my book—price 50 cents, postage or money order. Your money back if not satisfactory.

FREE SEED—To everyone ordering my booklet within the next 30 days I will send FREE with each book one package each of the best varieties of early and late tomatoes. I make this offer so that you will get ready now for your spring gardening. Don't wait until the last minute when the rush is on. Send for my booklet today, and I know you will be thankful that you made such a wise investment.

T. F. POTTER, Tomato Specialist, Dept. H, DOWNERS GROVE, ILL.



STEEL ROOFING

PER 100 SQUARE FEET

$1.50

Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding. Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new. **$1.50** is our price for our No. 15 grade of Flat Semi-Hardened steel roofing and siding, each sheet 24 ins. wide and 24 ins. long. Our price on the corrugated, like illustration, sheets 22 ins. wide x 24 ins. long, **$1.75.** At 25c per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, **per square, $2.00.** Fine Steel Beaded Ceiling, **per square, $2.00.** Can also furnish standing seam or "V" crimped Roofing. **WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO** except Okla., Tex. and Ind. Ter. Quotations to other points on application

Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this ad C. O. D., with privilege of examination if you will send us 25% of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit. **Ask for Catalog No. WE 733.** Lowest prices on Roofing, Eave Trough, Wire, Pipe, Fencing, Plumbings, Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales. **CHICAGO HOUSE WRECKING CO., 35TH AND IRON STS., CHICAGO**

and delivering them at their door. Quality counts, and the public knows a good thing when it sees it.

East Stanbridge, Quebec.

Mr. Moore is correct in his conclusion that ground should be plowed early in the fall. Where old manure is to be used it should be scattered on the ground and left to lie during the winter months. By so doing any larvæ of the grub that might be present will be destroyed by freezing. We doubt if there is any better preventive for the white grub than turning hogs on the infested ground. Chickens and turkeys following the plow will gather up every grub in sight. Liberal dressings of potash or nitrate of soda have proved beneficial. If potash is used, 200 pounds to the acre; if nitrate of soda, 100 pounds. Potash should be drilled on top of the ground and thoroughly worked into the soil before setting plants; and the nitrate of soda may be placed in around the plants and worked in with a hoe.

S. H. Warren, the veteran strawberry specialist of Weston, Mass., in a note to The Strawberry raises the same question as to the time of fall plowing, saying:

How deep do the white grubs go down to protect themselves from winter's frost? In plowing a field in September that had grown a crop of oats, I found in less than one-half acre, and I picked them up, too, 2,500 of these grubs. In November I finished plowing the same field and found but few grubs, although to find them I went, occasionally, three times in the same furrow. I found about one-twentieth the number I did in September. I expect to find them in May—shall I not?

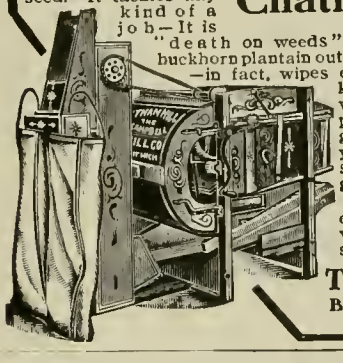
Doubtless they will be there, just as Mr. Moore found to be the case. And Mr. Moore's experience with the grub in connection with his potatoes leads us to suggest the advisability of planting potatoes between the rows of strawberries where the land is badly infested with the grub. The preference of the grub for the potato is very marked, and as our correspondent describes, they were easily found directly in potato hills. It is possible that this course would result in ridding the field of the pest. Of course, it will be understood that we do not recommend setting potatoes or anything else with strawberries as a rule. We suggest it only for the purpose of curing a specific trouble.

And let us say here that we are greatly indebted to Mr. Moore for his very valuable account of his experience, and that we hope other readers may contribute from their own experience such illuminating and suggestive facts.—Editor Strawberry.

Just Ask for Our SPECIAL PRICE On this CHATHAM Fanning Mill

Our answer will surprise you.
Why? Well, there will be a lot of surprises.
First, the price that we will quote you.
Second, the easy terms on which we will let you pay for the mill.
Third, the Chatham Fanning Mill will actually, clean, separate and *grade* (yes, sir, we said *grade*, and we mean it!) from 40 to 80 bushels per hour—Its *capacity* is wonderful—Its *ease of operation* is remarkable—Its all-around *usefulness* and its importance as a *profit-maker* makes its owner wonder how he ever got along at all without a Chatham.

The Chatham Fanning Mill will handle all kinds of grain and seed. It tackles any kind of a job—It is "death on weeds"—Takes buckhorn plantain out of clover—in fact, wipes out any kind of a weed pest by giving you pure seed grain. It is equipped with 17 screens and riddles—a patent bagging attachment which saves one man's time, and more special, practical features than we have space even to name here.



30 Days' Free Trial Freight Prepaid

Our idea is to build the Chatham so complete and perfect that the mill sells itself. We will ship you a Chatham Fanning Mill on *30 Days' Free Trial, freight prepaid*, no matter where you live. Use it all that time, *free*, while you are making up your mind whether to buy it or not. If it doesn't do all we say it will, send it back at our expense.

We're not going to *let* you keep it if it doesn't do the work and do it *right!* Selling Fanning Mills on the plan we do—direct from our factory to the actual user—*the very life of our business depends upon the satisfactory working of the mills we put out.*

All we ask is that you *try* the Chatham and let it *prove itself*—Let it show how it can quickly put its own cost *back in your pocket* and *make a profit* for you. The Chatham Fanning Mill isn't a luxury. It's a necessity! You need it on your farm right NOW.

Chatham Book Free

Send for the *Chatham Book FREE.* It tells of over 100 ways to increase farm profits. Tells how to stop the losses and make every cultivated acre on your farm yield crops in abundance. It's a regular Bureau of Free Information on Grain, Breeding, Planting and Seeding. It tells everything in a mighty sensible interesting way. Get it. Read it. Profit by it.

Sent promptly, postage paid, if you just ask for it on a postal card. If you live west of the Mississippi, write our Topeka office; if east, write to Detroit.

THE MANSON CAMPBELL CO. Ltd.
Box 385, Topeka, Kas. 385 Wesson Av., Detroit, Mich.
We have 24 Branch Warehouses and make prompt shipments.

BUY SEEDS DIRECT FROM THE GROWER

You will not only get **Better Seeds**, but will get them **Cheaper.**

HARRIS' SEEDS Grown at MORETON FARM (250 Acres)

are sold only direct to the planter at prices as low as dealers have to pay. We raise **VEGETABLE SEEDS, SEED POTATOES,** and improved **FARM SEEDS.** Ask for Catalogue and sample of a grand New Flint Corn that yielded 200 bu. per acre last season. **Both Free.**

JOSEPH HARRIS COMPANY, Moreton Farm, COLDWATER, N. Y.

HURST POTATO & ORCHARD SPRAYER ON FREE TRIAL

As Potato Sprayer.

No money in advance—Pay when convenient. Sprays everything—Trees; Potatoes, etc. 4 rows at a time—20 acres a day *Doubles your crop.* Even 2-acre growers say: "It pays for itself first season," as it has so many uses. A 16-year-old boy can operate it with ease. Brass Ball valves, Cylinder, etc. *Guaranteed 5 years. Wholesale Price*—(where no agent) **AGENTS WANTED.** After trial, if you keep it, we make terms to suit you. **Special Free Offer** to first one in each locality. "SPRAYING GUIDE" and full information Free. We pay Freight. Write today.

H. L. HURST MFG. CO., 75 North St., Canton, O.

As Orchard Sprayer.

FRUIT TREES

Start your orchard now. Fortunes have been made by it. Start right by planting hardy, well cultured stock, that will live anywhere—guaranteed—materially less than agent's price—ask for prices on 1,000 lots. Illustrated Catalogue free.

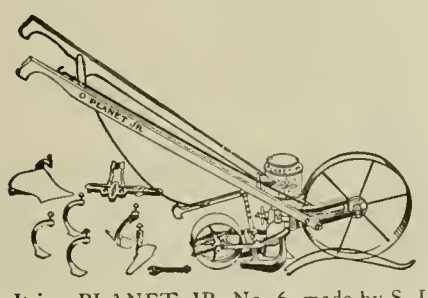
CHATTANOOGA NURSERIES
Box 10 CHATTANOOGA, TENNESSEE

Wonderful New Garden Tool

Combines a Whole Set of Useful Implements

ONE of the greatest labor-saving garden implements ever invented is put on the market this year—a new combination Seeder, Wheel Hoe, Cultivator and Plow. It opens the furrow, sows any kind of garden seed accurately—in hills or drills—covers, rolls the ground and marks the next row, all in one operation. It enables one man to do the work of three to six men easier and better than it was ever done before.

Here is a picture of this remarkable tool.



It is a PLANET JR. No. 6, made by S. L. Allen & Co., who do things in their own way. Some people think it extravagant to use such high grade materials and put so much work on their tools, and VERY extravagant to have five men do nothing but inspect. But every practical farmer and gardener knows what this means to him, and understands why PLANET JR. tools last and can be guaranteed.

Every gardener or farmer, whether he has a PLANET JR. or not, should send for the new 1907 PLANET JR. CATALOGUE of Seeders, Wheel Hoes, Horse Hoes, Riding, Orchard, and Beet Cultivators—45 kinds in all—with the new, practical improvements. A postal mailed to S. L. Allen & Co., Box 1106 D, Philadelphia, brings this interesting book by next mail.

THE STRAWBERRY certainly is worth more than its weight in gold to anyone that grows strawberries," writes H. C. Ellis of Biloxi, Miss.

MAKE UP YOUR OWN BERRY BOXES

OUR

"Standard"

FOOT-POWER STAPLER

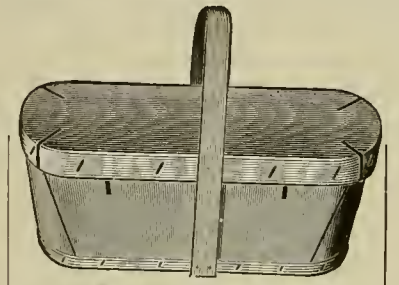
BUY YOUR MATERIAL IN THE FLAT AND MAKE UP YOUR OWN BOXES

Thousands of our stapling machines are being used by growers all over the country.

FULLY GUARANTEED AND LONGEST LIVED

PRICES ON REQUEST

ST. JOSEPH IRON WORKS, 622 WATER ST., ST. JOSEPH, MICH.



BERRY BOXES

and all kinds of Fruit Packages

OUR SPECIALTIES:

Quart and Pint Berry Boxes, 16 and 24-quart Crates, Picking Stands, Bushel Crates for Vegetables, All Kinds of Grape and Peach Baskets, Bushel Baskets with or without covers, Half-bushel Picking Baskets with strong handles, and many other convenient packages for fruit and vegetable growers; the most durable made

Write for our **Free Catalogue.** It describes and illustrates everything we make

GEO. B. THAYER & CO., Benton Harbor, Mich.

BUSHEL TO A PLANT

Make the most DOLLARS raising this tomato. It's early, large, perfectly smooth. Has perfect flavor, very solid and lusciously attractive.
Sterling Tomato
Seeds are sold ONLY in SEALED PACKAGES. Large package 10c — 2 packages 25c — postpaid. Plant often produces a bushel from early season until frost. Greatest money maker. FREE Catalog and Premium offer below. Also Free "Alfalfa" and "Pasture Mixture" Books if you ask. For most reliable Field, Vegetable and Flower Seeds write
NORTHRUP, KING & CO.
Seedsmen
295 Hennepin Ave., Minneapolis, Minn.
N.K. AND CO. STERLING
132 Page Catalog FREE
Free Seed Premiums
SEEDS

NATURE'S RIVAL BROODERS

THE Brooder that rivals nature because it has a hover as natural as an old hen. Send today for my circular explaining why they raise more and stronger chicks than other Brooders, also why they **cost you only 75c to $1.00 each.**

S. G. ROBINSON, Jr., Inventor and Patentee, R. F. D. 7, West Toledo, O.

CLASSIFIED ADVERTISING DEPARTMENT

Advertising in this department costs 3 cents a word. Numbers and initials count as words. Cash must accompany order. No ad. accepted for less than 50 cents per insertion.

BOOKS AND MAGAZINES

CHEER, by C. J. Wayne. A book of condensed common sense—as Bill Nye said, "wit and wisdom ooze out of it like the attar of roses out of the otter." Everybody reading Cheer. Prepaid 25 cts. Charles Publishing Co., Richmond, Ind. 7

FURNACES

$100 FURNACES $59. Book free. Schafer Furnace Company. Youngstown, Ohio. 2

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

DOGS, PETS, ETC.

ROUGH COATED SCOTCH COLLIES for sale. Pups four months old, $5.00 and up. Pedigreed stock. M. O. Wait, Alma, Ill. 2

FOR SALE—half blooded Scotch collie male pup 2 months old. Color, brindle. Price $5.00. R. L. Keith, Franklin Grove, Ill. 4

FARMS AND LANDS FOR SALE

FOR SALE—An 80 acre farm, 1½ miles from Alma, Ill., in the fruit and melon district. New house and plenty of water. Price $3,000. Write for particulars to M. O. Wait, Alma, Ill. 2

FOR SALE—Farms, stock ranches. Kansas and Missouri. Before you buy, write for free lists giving description, location and price. F. H. Humphrey, Fort Scott, Kansas. 2

STRAWBERRY LANDS. Men of national reputation as strawberry growers who are entirely unbiased claim that there is no region where strawberries grow to greater perfection than in this vicinity. We can sell you this fertile land at $10.00 per acre and some choice land within 3 miles of the city limits of Superior, the second largest city in Wisconsin, for $25.00 per acre. We have no drouths or floods in this region. A perfect climate. Easy terms. Special inducements to strawberry growers. No money down at all if you settle this spring. We have unexcelled markets. Write at once for the special bargains. Each inquiry will receive careful attention. Clover Belt Land & Loan Co., Solon Springs, Wis. 3

MINES

FOR SALE, a fully equipped, large, rich Gold Quartz Mine at but a fraction of its actual value. Net proceeds of ore now blocked out will more than cover the purchase price. Must be sold at once on account of old age and sickness. Price $30,000 cash, 60 days for examination. If agreeable writer will be pleased to take a one-fourth, being as large an interest as his means will permit. For a complete report please address S. B. Fowler, Box 447, Grass Valley, Nevada county, California. 2

PLANTS AND ROOTS

MICHIGAN and Cobbler Potatoes. Millions of vegetable and strawberry plants. Danish cabbage seed. F. M. Pattington, Sciptoville, N. Y. 4

PALMETTO Asparagus, strong two-year plants, 100, $1.00; 1,000, $4.00. Kansas Raspberries, 100, $2.00. C. Gould, Gilman, Ill., Route 2. 2

STRAWBERRY PLANTS THAT GROW." Best varieties; also Raspberry, Blackberry, Gooseberry, Currant, and Grape plants, Asparagus Roots and Seed Potatoes in assortment. All stock warranted true to name and of grade represented. 40 page catalogue with 25c duebill free to each inquirer. C. E. Whitten, Box 27, Bridgman, Mich. 3

AGENTS WANTED

MEN AND WOMEN—If you sell vermin powder, using spare time, you will never be without money. No poultry vermin, roaches, ants, waterbugs, etc., can exist where used. Big inducement. Write for proposition. Vermin Powder Co., Scranton, Pa. 4

POULTRY, EGGS, ETC.

A THOUSAND DOLLAR HEN" is owned by U. R. Fishel, Box E, Hope, Indiana. Send 2 dimes (20 cents) for 56 page catalogue telling all about the largest Poultry Farm in the World. 2

BARGAINS, stock or eggs. Thoroughbred Poultry, Ducks, Geese. 6,000 prizes, circular free. Charley Smiley, Milligan, Ind.

B. P. ROCK eggs for sale; also agent for Old Trusty Incubator. Mrs. Emma Zink, Eskridge, Kan. 2

BARRED PLYMOUTH ROCK Cockerels, also eggs in season. E. B. Wing, Little Valley, N. Y., Box 10. 2

EGGS. Best strain White Plymouth Rocks, pure white, large birds, prolific layers. E. J. Kirby, Covert, Mich. 4

HOUDANS. From highest scoring birds in America. 281 egg strain. Large, dark, beautiful. Write for prices. Dr. Geo. Taylor, Orleans, Ind. 2

90 VARIETIES. 2,000 Birds. Hatching Eggs a specialty. Dogs, Ferrets, Pigeons, Hares, etc. Descriptive colored 60 page book 10 cents. List free. J. A. Bergey, Box 37, Telford, Pa. 3

ORPINGTONS, S. C. Buff and White, Blue Ribbon Winners, score to 95. Eggs, one setting, $3.00. Two, $5.00. Guaranteed to produce winners. Frank Crowell, Granger, Minn. 4

PRIZE-WINNING BUFF WYANDOTTES. Circular free. Otis Crane, Lebanon, Ind. 2

PURE bred Pekin ducks for sale, 650 selected breeders. Raukin-Hallock strain, fine birds. Eggs by 100 or 1,000. Golden West Duck Ranche, Joliet, Ill. 4

ROYAL BLUE BARRED PLYMOUTH ROCKS; Eggs for sale. A good hatch guaranteed. George W. Watson, Raleigh, Illinois. 4

RHODE ISLAND REDS, both combs. Fine cockerels $2.50 and $5.00 each. Eggs from prize winning pens $3.00 per 15. Cherry Red Co., Elgin, Ill. 2

RHODE ISLAND REDS, Light Brahmas, White Barred Rocks, White Leghorns and Wyandottes. Hardy, prolific, farm bred pure stock. For "Birds" at moderate prices or "Eggs to Hatch" at 10 cents each write Walter Sherman, Berry Patch, Newport, R. I. 5

SINGLE COMB BUFF ORPINGTONS. Eggs for hatching from excellent strain of layers and grand exhibition birds. $2.00 per 15. Bonnieview Farm, Orleans, Ind. 2

TWENTY-FIVE Breeds Geese, Ducks and Chickens. Catalogue free. Largest poultry farm in the northwest. Great Western Poultry Farm, Rural Route No. 4, Mapleton, Minn. 4

WHITE PLYMOUTH ROCKS—White Rose Comb Leghorns; stock $1, $2 and $3 each; eggs $1 for 15; there's none better than mine; inquiries gladly answered. F. V. Wadsworth, Castleton, Ind. 2

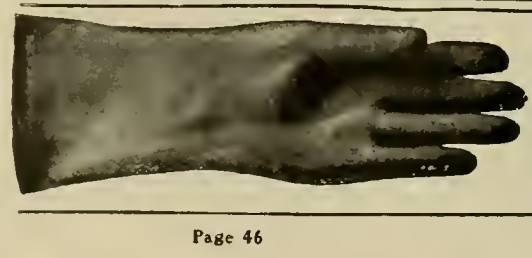
WHITE WYANDOTTES—I have them, bred to lay and to show from the famous Dustin strain. Eggs $1 for 13; $5 for 100. H. F. Hallett, Ashfield, Mass. 3

SECTIONAL CRATES

TUFTS' SECTIONAL CRATE. Neat in appearance. Well ventilated. No division racks. No mashed fruit. Displays fruit to best advantage—investigate. Free catalogue. Manufactured by Elmer G. Tufts, Aurora, Ind. 5

STRAWBERRIES

big, red and lucious are grown from **ALLEN'S** choice vigorous strawberry plants. None better. Good Luck, Chesapeake, Virginia, and Cardinal **now** Glen Mary, Haverland, Dunlap, Marshall, Klondyke, Gandy, Bubach, Climax and all best standard sorts, 90 varieties. Prices Right; **DEWBERRIES,** Austin's, Lucretia, and Premo. I have big stock and they are fine, also Raspberry, Currant and Gooseberry plants, and Grape vines. In **SEEDS** I have the leading varieties for field and garden, my 1907 supply of Peas, Beans, Watermelon, Cantaloupe, and Cucumber seeds **are very choice.** Millions of vegetable plants in season. My 60 page Catalog for 1907 tells about lots of good things for the farm and garden and where to get them. **It's FREE.** Send same and address on postal to **W. F. ALLEN** Dept. 58, **Salisbury, Md.**



SAVE YOUR HANDS

No more stained, chapped or rough **hands,** while doing housework. **ECONOMY RUBBER GLOVES** are an absolute protection and when used leave the **hands** soft and white. Each pair guaranteed. Sent postpaid for 57 cents. When ordering send for size larger than your glove number. **Order now. Do it today.**

MRS. J. H. PRATT, Three Rivers, Mich.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

BEFORE taking up the work of the school, the instructor wishes to return thanks for the cordial letters received from members in response to his request for suggestions that might result in making the work of the school more effective, although he must confess that more compliments than suggestions were received. Thos. A. Peake of Birmingham, Ala., in the course of a highly prized letter says:

There is one suggestion we will venture to make and that is: Have a department in which strawberry growers can give their practical experience. Let them tell not only of the success they have had, but tell something of their mistakes and failures so not only themselves but others may profit by them. As "knowledge of what has been done is economy in all labor," we beginners especially will save time and money by following the advice and avoiding the mistakes of others.

As the editor suggests, let every reader, or as many as can, "tell of their ways of doing things." Then, as the editor also suggests, he can write a "summary" in which he can make comments and criticisms, and in this way we believe The Strawberry will be made still more interesting and helpful.

Of course it will. That is exactly the way to get the most good out of this work, and we shall hope that Mr. Peake's motion may carry unanimously.

When one of the Northwestern members found a reminder in The Strawberry that it was the rule of the publishers to stop sending the magazine when the time of subscription of each member had expired, he immediately sat down and wrote the following illustrated letter:

DEAR STRAWBERRY:

Don't you do it! Don't stop it! I subscribed for it before it was born. I've got to have it. If it should ever have a funeral I shall give it a monument—a big one! I've read every number "all to pieces"—and saved the pieces, and I would not sell the volume for an acre of strawberries.

You cannot know how The Strawberry eased the small of my back and the bulge of my ankles during the noon hour in summer time.

My best weapon is a trowel, home made, large, heavy, with a handle for pushing, like this:

And a file to keep it sharp.

Fraternally.

St. Charles, Minn. C. J. PICKERT.

Another thing we are gratified about, namely, the style in which questions now are coming in. Nearly everybody has acted upon our suggestion and writes questions separate from any other matter, and usually they are numbered. This is a great improvement, and not only saves time, but enables us better to understand the question asked and so better able to answer it intelligently.

We hope that every member is making the most of these winter days and doing things and learning things that will make for success when the growing and ripening and marketing seasons are come.

W. H. R., Cascade, B. C. Kindly inform me if in your opinion slaked lime would be as good when sprinkled around strawberry plants as Paris green to destroy cut-worms? They almost ruined our plants last season; we would get from fifteen to thirty worms around each plant. We do not have the white grub.

We do not think that lime would have any effect whatever upon cut-worms. Paris green or arsenites of any kind, mixed with mill-feed may be placed about the plants after being set out. This will be found as good as any remedy you will get. Fall plowing gives the birds a chance to find the worms, which is a good preventive. However, it is seldom that cut-worms ever bother strawberry plants.

I AM sorry I did not send for The Strawberry sooner.

T. F. JONES.

Wellsville, Mo., June 26, 1906.

A. H. D., Reidsville, N. C. Some kind of insect is working on my plants, eating the foliage full of holes. One person suggests that it is weevil. Will you tell me what it is and how to get rid of it?

The insect you describe is the saw-fly, and easily may be gotten rid of by spraying with Paris green. Take seven ounces of Paris green, sprinkle over it two pounds of lump lime, pour over this two or three gallons of hot water and stir while slaking to prevent burning. When thoroughly slaked add enough water to make forty gallons, and spray the plants as soon as you see the insects working on them. which will be before the plants bloom. They will be found on the under side of shady part of the leaf. It is a grayish worm about one-fourth inch long.

A. H. F., Oregon City, Oregon. How is the crown borer propagated—from a moth, or is it this white grub I see so much about? What is the remedy? It is the only enemy I have to contend with.

2. Is it true they are more partial to some plants? Brandywine seems their favorite, Texas next, Dornan, Glen Mary and Climax seem exempt.

3. When is best for me to mulch? All I have to mulch for is cleanliness—no freezing here. Should I put it on just as soon as new leaves show, or wait till buds are about to open? I have to cultivate and hoe right through the winter to keep weeds in subjection. Plants will bleach if I cover them here.

The strawberry crown borer is the larva of a beetle. This larva is a whitish, footless yellow-headed grub about one-fifth of an inch long. It lives in the crowns of strawberry plants, frequently burrowing them out so much as to weaken and sometimes destroy them. The beetle is dark a colored, snouted insect, about one-fifth of an inch long, It is unable to fly because of the membranous condition of its wings. This beetle lays its eggs on the crown of the plants in the spring. When hatched the larvæ soon penetrate into the crown and work upon the interior of the plants all summer until they get full grown. A single larva will not wholly destroy the plant, but sometimes three or four larvæ work upon the same crown. The only way these insects may be carried from field to field is by transference with the plants. For this reason they do more damage to old than to new-set fields. There is no relationship between the borer and the ubiquitous white grub. Preventives for the crown borer are: First, spray late in the summer with arsenate of lead, using four pounds to fifty gallons of water. This will poison many of the beetles. Immediately after fruit is picked mow off the bed and burn over. This will destroy the insects. Then turn the bed under in July and this will destroy any immature larvæ that might remain in the crowns. Never set any plants from your own bed until you are rid of this pest. We have never seen a crown borer on The Strawberry farm.

2. The crown borer is not partial to any particular variety of strawberry.

3. Mulching in your locality should be done in the winter months and the material should be put between the rows

only; never over the plants. If you practice cultivating the fruit bed a lot of labor will be saved by putting the mulching just along the plants on either side of the row, making it broad enough to keep all of the berries clean. By this method your plants never will bleach, as they are left in the open air.

C. C. J., Amesbury, Mass. Is there greater affinity between certain kinds of strawberries in the matter of pollenation than there is between other certain kinds, time of blossoming, etc., being the same?

2. In the matted-row system would it pay, before uncovering the plants in the spring, to rake the straw from between the rows on to the plants and cultivate once or twice, providing the ground is such that it can be done?

3. What strawberries should be added to the following list to lengthen the season and increase the crop—Clyde, Glen Mary, Pride of Michigan, Splendid and Dornan?

In bisexuals that furnish an abundance of rich pollen and bloom concurrently with the pistillates we doubt if there is any difference in results of pollenation.

2. The objection to following this plan would be this: After the mulch has lain on the ground all winter the ground becomes very wet and soggy, and it would take it some time to become dry enough for cultivation. This would make it necessary for the excessive mulch that was raked upon the plants to lie there so long that it would bleach the plants and make them tender.

3. You can lengthen your season for berries by adding to your list some extra-early varieties, such as Excelsior and August Luther, and we might say by adding a late variety like the Gandy, as it is later by two or three days than the Pride of Michigan.

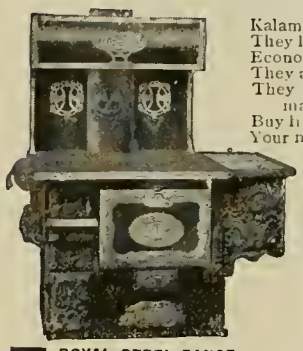
C. W. L., LaGrange, Ore. We put out 40,000 plants—Clark's Seedling and Downing's Bride, principally the former, last June. They grew finely and put out lots of runners which blossomed and bore quantities of fine berries. Should we have picked the buds off? Will these young plants do to transplant this spring? We intend to put out more berries.

2. Will you tell me the nicest way to pack berries for shipping?

It is a common occurrence for strawberries to produce a light fall crop in your locality, and as your plants were strong and vigorous the few berries produced in the fall by the mother plants will in no way weaken the runner plants that you intend transplanting in the spring of 1907. However, we never advise taking plants from a fruiting bed; that is to say, it is poor policy to try to grow plants and fruit in the same bed at the same time, as that is asking plants to do double work.

2. The most attractive way to pack berries for shipping is to lay the top layer

"A Kalamazoo Direct to You"



OAK STOVE HEATER, For All Kinds of Fuel.

Kalamazoos are fuel savers,—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality,—
They are easily operated and quickly set up and made ready for business,—
Buy from the actual manufacturer,—
Your money returned if everything is not exactly as represented—
You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices.

If you think $5, or $10, or $40, worth saving

Send Postal for Catalogue No. 348

ROYAL STEEL RANGE For All Kinds of Fuel.

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 267 styles and sizes for all kinds of fuel. Write now. Sold on 360 Days Approval Test.

Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.

Oven Thermometer

J. R. Naylor, a practical farmer who invented this great time-saving 2-in-1 Harrow.

My 2-in-1 Harrow Makes a Perfect Seed Bed in HALF THE TIME

BECAUSE it does the work of both a Spring Tooth and a Spike Tooth Harrow at one time and at *one operation*.

Because, you see, my harrow is BOTH HARROWS IN ONE.

If you have to go over your field *four* times now—you'll only have to go over it *twice* with my harrow.

If your ground is in such shape that you now go over it twice, then only *once over* will give you an even better seed bed when you use my harrow, and you can follow right along with a planter.

That means if it rains overnight you haven't got your work to do over again.

On newly broken sod you can work across the furrows (instead of with them) and not pull up a single sod or choke the teeth. You can prepare new ground with my harrow in a THIRD the time you can working the old way—using two harrows separately.

One lever instantly adjusts my harrow so you can use the spring teeth alone—or the spike teeth alone—or both together—or you can throw all the teeth up out of the way so that the frame will slide along the ground like a stone-boat.

When a live farmer knows about my harrow he wants it. I can name, off-hand, twenty places near my farm in Cass Co., Mich., where you'll find good spring tooth and spike tooth harrows out in the barnyard with grass growing up around them.

The farmers have thrown them away and are using my harrow alone—and they're MAKING MONEY by doing it.

HOW I CAME TO INVENT THE 2-IN-1 HARROW.

I always had the same trouble you've had in getting my ground ready.

It seemed like there ought to be some way around it. So my brother and I got busy one winter AND SOLVED THE PROBLEM.

This is the way we figured:

A spring tooth harrow wants to keep digging in all the time. That keeps the frame pressed hard on the ground and it's a tough pull on the horses.

A spike tooth wants to keep jumping up all the time, you have to put some heft on the top to keep it down. The horses have to drag the heft as well as the harrow.

So we made a 2-in-1 harrow—spring and spike teeth together. That season we used it on our farm and it worked just as we figured it would.

The spikes kept the springs from digging in too far, and the dig of the springs kept the spikes down to their work—and once over (except on extra bad ground) left a smooth, even, perfect seed bed.

That's why my 2-in-1 Harrow was easier on the horses than either a spring tooth or spike tooth alone and SAVED OVER HALF OUR TIME getting ready for planting.

The best proof of how really good my harrow is lies in the actual fact that every harrow I have sold has since sold from two to five more.

My Harrow is such a really wonderful thing and such a TIME and MONEY saver for the farmer that I expect each harrow I place will keep on selling others in the neighborhood. So I have decided to make a

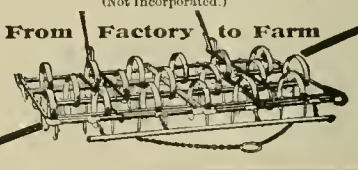
SPECIAL CONFIDENTIAL PRICE

to the first man in a locality who writes me—the confidential price will be AWAY DOWN, too.

Don't even consider buying a Harrow till you get my confidential Introduction Price.

Write quick to

J. R. NAYLOR,
Naylor Mfg. Co., 4 Spring Av., LaGrange, Ill.
(Not Incorporated.)



Knight's Fruit Plants

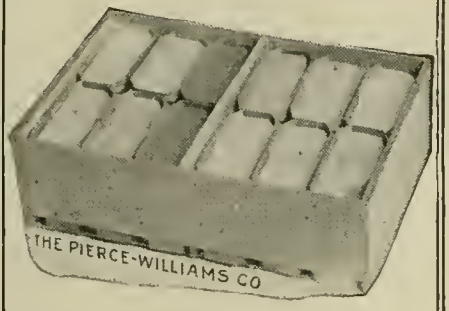
EVERYTHING FOR THE SMALL FRUIT FARM

EATON The most wonderful advance over other Red Raspberries; Cumberland, Eureka and twelve other best Raspberries. Blower, Eldorado, Rathbun and ten other luscious Blackberries. Fifty varieties of Strawberries, all of the best money makers. Grapes, Currants and Gooseberries.

Our Catalogue Describes All of Them and Contains Much Valuable Information

DAVID KNIGHT & SON - - SAWYER, MICHIGAN

Fruit Packages



THE PACKAGE SELLS THE FRUIT

KEEP this in mind when ordering your packages for the coming season. Remember that we have been making Fruit Packages over a quarter of a century and know how to make them right.

We use the best timber we can get, make it up with modern machines, and the result comes as near package perfection as can be attained.

Order early wherever you buy, but don't forget our Trade Mark.

We make all kinds of boxes and baskets.

Send for catalogue and price list.

THE PIERCE-WILLIAMS CO.,

South Haven, Mich. and Jonesboro, Ark.

of each box so that the calyx will be mostly hidden. If you are growing a long-shaped berry it will be necessary to lay them on their sides, which will show a part of the calyx. Be sure and have just as nice berries on the bottom of boxes as there are on top. A little care in this part of the work pays handsomely.

S. C., Dennysville, Me. I see you recommend mowing off the plants and burning the bed over. What is the proper time to do this?

Just as soon as your plants are through fruiting the first crop.

H. P. G., Clifton Springs, N. Y. What is the matter with the mother plants which I planted in the spring? When it gets to the last part of July and the first part of August some of them crisp up to nothing and sometimes affect the runners, and some of them after awhile will begin to grow again from the heart, but will be weak.

2. I want to put out a new bed this spring which was in potatoes last fall. I could not get manure then. Will it be harmful to put it on in the spring—the last of March?

When plants act as you describe, it is evident that something is working at the roots. When the mother plant makes an effort to start growing again the insect has left it and gone to another, but the plant's usefulness has been destroyed.

2. If you can get fresh manure without much coarse material mixed in with it, it will be all right to apply in the spring before breaking up your ground; but if old manure is used there will be danger of carrying into your field the larvæ of the white grub. Fresh manure made in winter never is infested with this larvæ.

E. L. P., Iron Mountain, Mich. Will plants grow up through mulch satisfactorily in spring if same is light and not removed?

2. Will it do to burn mulching over in spring before growth starts, especially if plants previous season were affected with rust?

3. Is there any place to which I could send sample of my soil with reference to having it analyzed in order to determine in what elements it is most deficient?

4. On sloping ground, is it better to have rows run up and down, or nearly horizontal (at right angles with line of greatest slope)?

5. What hand-transplanter would you recommend?

6. In this Upper Peninsula, where the summer is short, would you prefer cow-peas or clover for green-manuring?

7. What is the object of the narrowing down by plowing each side of row after fruiting, where the single-hedge row system is used?

8. It was about August 10 before plants were through fruiting and ready for plowing, burning, etc., and after that the season is so short that very few runners grew enough to make sets. Under such circumstances, is it not better to allow the mother plants set out the previous season remain rather than to "strike out" these with a hoe, in order that they may be replaced by a small new set?

9. You state that the roots continue to grow until the ground freezes. In many parts of the Upper Peninsula, owing to early and deep snows, the ground often does not freeze all winter. Do the roots grow all winter under such circumstances, and if so, is it an advantage or otherwise? If the roots do not "callous" except by freezing, and the callousing is important to start formation of new root-growth the following spring, would it not be a disadvantage not to have the ground freeze?

10. You say in The Strawberry, "Do not cultivate in the spring until all danger of frost is past." But all danger of frost is not past until the flowering season is about over. Should plants not be cultivated before this?

It always is best to open the mulch directly over the row of plants. Even if mulch is applied thinly it interferes with the plant's natural growth.

2. No; plants should not be burned over in spring before fruiting. One of our neighboring grower's patch accidentally caught fire early last spring and the mulching was entirely burned off. Although a large percentage of his plants were uninjured and produced an enormous crop of berries, yet a great many were completely destroyed. We are

SEEDS

"STOKES' STANDARDS"

The best seeds in the world, and a new way of selling them. I have selected them for you from thousands of varieties, guided by my 25 years' practical experience and constant experimenting at my Floracroft Trial Grounds. They make your garden as successful as the most expert gardeners.

My new 1907 catalogue tells about these and other vegetable and flower seeds, shows actual photographs of what they have produced; gives complete directions for successful growing.

"Stokes' Standard" Earliest Tomato

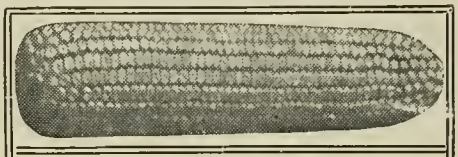
Ready for marketing before all other varieties and naturally commands the highest prices. Bright scarlet fruit of great solidity and fine flavor; smooth, attractively shaped, uniform in size and exceedingly productive. Large pkt., 10c; oz., 50c; ¼ lb., $1.50.

Write for my new catalogue and my new way of selling. Go further—tell me about your garden problems and let me help you.

STOKES' SEED STORE

WALTER P. STOKES, of the late firm of JOHNSON & STOKES.

219 Market Street, Philadelphia.



Doerr's Yellow Dent

Boys, we want everyone of you to grow and sell our corn in 1907

4 lbs. sent prepaid by mail to any address for $1.00. Special prices to Strawberry boys. Write us. Our letters tell how we bred and originated Doerr's Yellow Dent.

A. T. DOERR & SONS, - HARVEL, ILLINOIS

A THRIFTY GARDEN

whether large or small, needs proper tools for seeding and cultivating. We make garden implements of all kinds, a tool for every purpose.

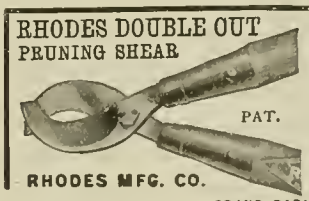
MATTHEWS' NEW UNIVERSAL
Hand Seeders and Cultivators

singly or combined with Hoes, Plows, Rakes Markers, etc. Over 20 styles. **FREE BOOKLET** giving description, prices and valuable information mailed to any address. Send for it now

GAROFN TOOLS FOR EVERY PURPOSE

AMES PLOW CO., 143 Market St., BOSTON, MASS

RHODES DOUBLE CUT PRUNING SHEAR



Cuts from both sides of limb and does not bruise the bark. We pay Express charges on all orders. Write for circular and prices.

RHODES MFG. CO.

Dept. 11 GRAND RAPIDS, MICH.

Fruit Packages of all Kinds

Before ordering your supplies write for our **Descriptive Catalogue and Price List.**

BERLIN FRUIT BOX CO.,

Erie Co. Berlin Heights, Ohio.

convinced this is not a safe practice. To control rust spray with Bordeaux mixture when growth starts in the spring; repeat in ten days and again just before buds open.

3. The Michigan Agricultural College could analyze your soil and tell what it contained, but could not indicate what percentage of the plant food is available.

4. The rows on rapidly sloping ground should run transversely in order to prevent washing.

5. In our own experience we have found the dibble the most satisfactory tool to use in this work.

6. In your locality we would recommend Canadian field peas, as these are not injured by frost, and will continue growing until freezing weather.

7. By throwing a furrow from each side of a single-hedge row after the fruiting season, it becomes possible to secure a mellow seed bed for the new roots to develop in. It also opens up the soil to a greater depth than could be done with ordinary cultivating tools. The point is to secure a seed bed as nearly as possible like the condition the bed was in when the plants first were set. When this is done and the crown of the plant is covered with fine soil, the second crop most always will equal the first crop.

8. Yes; in your case it would be better to let the mother plants remain. A light dressing of manure applied after the bed has been prepared as in answer No. 7 will force a larger number of runners to form.

9. If ground is not frozen, the roots of plants will continue to grow under snow. If plants are not calloused, it will in no way affect them if they are not disturbed. The principal advantage of a calloused root is that it enables them to stand a long-distance shipping. Even in taking up plants and setting them on your own ground, a plant with calloused roots will begin its growth more quickly than will one not calloused.

10. In your locality it will be best to wait until the plants are through blooming before starting the cultivator in your fruiting bed. As a rule there is an abundance of rain early in the spring, and the little waste in moisture is not so serious a matter as it would be later on in the season.

J. A. S., Aberdeen, S. D. What varieties are best adapted to hill culture?

While the following named varieties will do well in the single or double hedge row, they also are well adapted to hill culture: Excelsior, Texas, Crescent, Glen Mary, Dunlap, Pride of Michigan, Dornan and Stevens' Late Champion.

S. W. W., Dixon, Ill. Will it do to plant my berries in rows four feet apart and put early potatoes between them, if I get the potatoes dug before the berries begin to set runners? 2. By fifty bushels of ashes to the acre, do you mean to indicate quantity by measure or by weight?

It is not wise to set anything else with strawberry plants. The result is likely to be that both the strawberries and the vegetables planted with them would suffer. The strawberry is a heavy feeder, and therefore draws largely upon the plant food contained in the soil. We would advise you to set the plants in rows not more than three feet apart, and give up the entire field to them. Very small vegetables such as early radishes, lettuce and onions have been grown between rows of strawberries quite successfully where intensive cultural methods were followed.

2. When we speak of bushels of ashes we refer to the measured bushel, and not to the quantity by weight.

J. D. C., Boyd, Tex. My strawberries blossomed quite heavily in the fall, during which season we have light freezing at intervals. As a result they do not bear well in the spring. What kind of treatment could I give my plants to secure a full crop?

The light freezing in the fall while plants are blooming will interfere with your plants' producing a fall crop, but unless they bloom exceedingly heavy in the fall the blooming should not materially lessen the spring crop. Our suggestion is that you cultivate your plants until very late in the fall, which would keep the

SPRAYING

If you want to spray trees, shrubs or vines, whitewash or disinfect buildings, kill vermin in poultry houses and make sanitary quarters, you can find nothing more to your purpose than a

Deming Outfit

Great variety in the Deming line, 20 styles Hand, Bucket, Knapsack, Barrel and Gasoline Engine Sprayers. All right working. Every style the result of long experience. Don't buy till you send for free catalogue and all particulars.

The Deming Company,
416 Depot Street, Salem, Ohio
General Agencies in Principal Cities
Henion & Hubbell, Western Agents, Chicago

SPRAYING

your fruit with a good spray pump means dollars to you. The Eclipse earns big profits and lasts for years. We invented the

ECLIPSE SPRAY PUMP

after experimenting for years in our own orchards with the common sprayers. We have it illustrated in our 40-page catalog—send for it to-day—it's brimful of useful and interesting reading for the gardener and fruitman.

MORRILL & MORLEY
Benton Harbor, Mich.

The "Kant-Klog" Sprayers

Something New. Gets twice the results with same labor and fluid. Flat or round, fine or coarse sprays from same nozzle. Ten styles. For trees, vines, vegetables, whitewashing, etc. Agents wanted. Booklets free.

A slight pressure of the thumb starts the spray.

Rochester Spray Pump Co.,
12 East Ave., Rochester, N. Y.

AN abundance of fruit of highest quality, finely colored and flavored, is the direct result of supplying a complete fertilizer containing from 7 to 12 per cent. of POTASH to the tree, vine or bush.

"Plant Food" is a book well worth a place in the library of any fruit grower. We will gladly mail it to all applicants.

GERMAN KALI WORKS
93 Nassau Street, New York

PAGE Poultry Fence

Strongest, best on the market. Fences poultry in, stock out, and lasts. Costs less erected than common netting, because it requires *no boards* at top or bottom and so *few posts*—one every 50 feet. You can't afford to buy poultry fence without investigating Page. Write for descriptions.

Page Woven Wire Fence Co.
Box 106, Adrian, Mich.

D. and C. Roses

are the best. *Always on their own roots.* Plants mailed to any point in the United States. Safe arrival guaranteed. Over 50 years' experience. Flower and Vegetable Seeds a Specialty. Write for

New Guide to Rose Culture

for 1907—the leading rose catalogue of America. 114 pages. Mailed free. Describes over 1,000 varieties. Tells how to grow them and all other desirable flowers. Est. 1850. 70 greenhouses.

THE DINGEE & CONARD CO., West Grove, Pa.

A beautiful colored plate of our

New Eaton Red Raspberry

and our strawberry catalog of valuable information about varieties with instructions for beginners. Free to all.

THE FLANSBURGH & POTTER CO.,
Lesile, Michigan.

vegetative part of the plants growing while retarding the development of the fruit buds until so late that they would not open until spring. Setting of late varieties might prove of some advantage.

This is an answer also to W. F. M., Marshall, Texas.

F. I. L., West Webster, N. Y. Does freezing spoil or injure Bordeaux mixture? Does age injure or weaken it?

We would not advise anyone to use Bordeaux mixtute after it has been frozen. We have always found the mixture just about as effective after it had been made for several weeks as when applied immediately after making. However, the safer way is to use it while fresh.

C. B. W., Denver, Colo. My soil is a sandy loam and I have been told that strawberries raised on such soil were too costly, as they had to be washed in order to remove the sand etc., that sticks to them. Now can you suggest some method whereby I could make a success of them?

2. I would like to set about one acre as I have a little over two acres on which I am growing nothing. We are just starting our place to fruit (four and one-half acres). We are to set 1,500 dewberries and 1,000 currants and about 3,000 asparagus, and have not decided just what to finish with, but would like to set strawberries if I could make it pay.

3. Next, our place had been neglected before we bought, so sand burs and Russian thistles have had full sway. Is there any crop outside of a hoed crop that would keep them down? I will have too much work for next summer to care for a hoed crop, but could perhaps plow the ground several times if a crop could not be raised to do away with the weeds.

4. Would it be best to set, say one-third acre in 1907, one-third acre in 1908, and the other one-third in 1909, then after the crop of 1910 on the first one-third, plow it up and sow cow peas and reset in 1911, continuing this order each year after?

It is evident that your neighbors are not advised in this matter. It is a very simple thing to do to keep your berries clean by mulching. You will see that by covering your berry plants with straw late in the fall, the winter rains and snows will press the straw flat upon the ground. Then in the spring take a fork and loosen the straw directly over the row of plants just enough to make an opening for the plants to come up through, and the berries will lie directly upon this clean straw floor, which will keep them so clean that they will be ready for table use with no washing whatever.

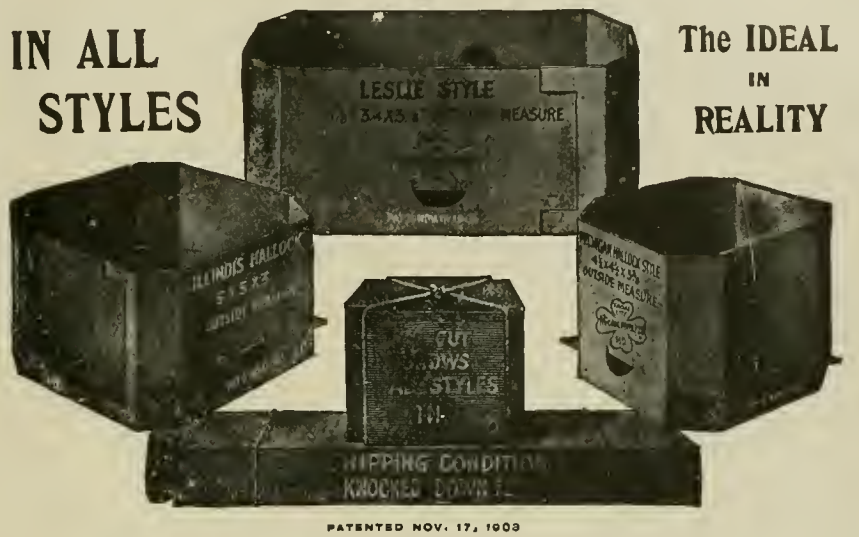
2. It would seem to us that four and a half acres near a large city like Denver could be made into a little Klondike, and you need not hesitate to set one acre to strawberries. We shall do our part to help you succeed in that department of your work.

3. If you had the time to look after this foul land when planted to some hoed crop it would be the better way, but we suggest a plan for handling this piece of land that will prove quite satisfactory, we are sure. As early as your ground may be worked next spring, plow it up and let it remain in that state until you observe that the weeds are germinating—about ten days to two weeks. Then harrow it twice, going once over it from north to south, then from east to west. This will destroy all the weed seed that has started to germinate. Repeat this operation every week or ten days up to the latter days of June, when you should give the ground another thorough harrowing and sow at least six pecks of cow peas to the acre; seven would be even better. The frequent harrowings will have destroyed a large percentage of the seeds which have sprouted, and by sowing peas late the ground has become thoroughly warmed, and in a few days the cow peas will quite cover the ground. Now take a one-horse weeder, such as the Hallock or Keystone, and go over the peas the same as you did with the harrow over the bare ground. The weeder teeth will not injure the peas, but will break every particle of the crust and thus destroy those seeds that are still germinating. This may appear to be a lot of work, but it will require only a short time to go over the acre as we have indicated. This will give you an immense quantity of hay valuable for either horses or cows. The time to cut the pea hay is while the peas are in bloom. And

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES



The IDEAL IN REALITY

PATENTED NOV. 17, 1903

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all who** have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crushed. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the flat condition.

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

Sales during 1906 in **31 states and some foreign countries,** and **1400 new names** were added to our already large list of customers. **Communication with 47 States**

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents

as the pea is a legume, the roots will add nitrogen as well as improve the mechanical condition of the soil. When the pea vines are cut replow this ground and sow to rye about mid-September, and if you can secure stable manure and can give the acre a light dressing with it, you will have ground in ideal condition for the reception and development of strawberry plants in the spring.

4. The plan you outline indicates you have given this matter much intelligent thought, and there is no suggestion we would make that would improve it.

H. L. Y., Cuyahoga Falls, N. Y. Have tested my soil and find it somewhat acid. What shall I do to correct the trouble?

For acidity in the soil one of the best things to do is to scatter very carefully and work in thoroughly, twenty-five bushels of slaked lime to the acre, or if you have hardwood ashes, fifty bushels of the latter to the acre will serve the same purpose.

M. C. S., Pontiac, Ill. Our greatest trouble is the leaf roller. What is your remedy for them?

This pest, like nearly all others, may be easily destroyed by burning the entire field over after fruiting time. Spraying with Paris green also will destroy the leaf roller if the spraying be done before the leaf is folded together, but after the leaf roller has enclosed itself in the leaf it is difficult to put poison where it will get it. There are four breeds each year of the leaf roller, and you should watch your plants with great care and begin spraying at the first sign of its presence.

E. D. G., Rochester, N. Y. Referring to spring cultivation why do you say, "after all danger of frost is over"? What harm would result from cultivating before? In this locality we would have to wait till about June 1.

2. How would a Planet Jr. seed drill do for applying nitrate of soda? Run two or three shallow drills each side of the rows. In this way it occurs to me it could be applied rapidly and evenly. I never tried it. It is out of season to do, but these winter months are the time to learn and get ready for business.

3. Have you known of the shell-less snail damaging strawberries? They did me much harm two years ago, eating many of the finest berries. Do you know anything to do in such a case?

4. Why do you say "double-hedge row" when it is in reality a triple row, or practically a narrow matted row with the plants arranged in order and rather thinly set?

5. Would it not be better for cultivating purposes and fully as good for fruiting, to arrange them with the same number of plants to a given area but strictly in two rows relatively near to each other then the wide space, two more near and wide space and so on?

It seems to me that your system of "double-hedge" must be quite tedious to cultivate while a true double hedge would give sufficient space for easy work with hand cultivator and do the wide spaces with horse.

Our reasons for advising against cultivation before danger from frost is past, is that cultivation makes the radiation of the earth's heat more rapid than it is when left uncultivated, and the more rapid this radiation the greater the danger from frost. The fact that frost continues until late indicates that cultivation should be relatively late. The advantage of cultivating the fruiting bed is this: It loosens up the hard, packed soil, which has become so during the winter, and not only does this conserve the moisture already in the soil, but opens up the surface which admits the water more readily. Repeating the cultivation furnishes air to bacteria, which in turn works up plant food into available form.

2. You are right, and we are very glad to have this question at this time when all of us can think it over. It is the fellow that does the planning ahead who is ready when the time comes and makes the fewest mistakes. As the Planet Jr. tools are made to do work with such accuracy, we see no reason why the drill should not distribute nitrate of soda with entire satisfaction. This material should be drilled close to the plants and not more than 100 pounds should be used to the acre; and fifty pounds would be ample.

3. We never have been troubled with anything of this kind. There is a soft snail-like insect which sometimes does damage to the very earliest berries, eating their way into fruit, curling up in snail form. It is rather difficult to name a treatment for insects that work upon the berries or upon the plants during the ripening process. Lime dusted about the plants will sometimes keep these pests away.

4. Because it is a double line of runner plants.

5. That would be the twin hedge row which is an ideal method. It requires more plants to set one acre than for the double-hedge.

E. H. H., Malvern, Pa. My worst enemy is the chickweed. Cultivate and hoe as fast as I could, this obnoxious growth seemed to keep just about so far ahead of me through the season. Can you tell me how to keep the chickweed from getting the start of me?

Thorough cultivation at the start—immediately after plants are set. Cultivate as close to the rows as it is safe to run the cultivator and then break all the surface in the row with the hoe that the cultivator leaves unbroken. This treatment kills the seed while in the germinating state. If chickweed is allowed to peep its head above the ground, it will be found very difficult to kill out.

NEW ZEALAND

Is the Land for the Traveler, the Health Seeker, the Home Seeker

A Beautiful Fertile Country Down in the South Seas
Sixteen Days' Steam from San Francisco

THERE is room in New Zealand for Thousands of Settlers. Rich Soil. Temperate Climate. Abundance of Water—**The Ideal Land for the Farmer.**

A pleasant country winter and Summer. No snowbound winters. No droughts.

As an **Agricultural, Meat-raising and Dairying Country** New Zealand has no superior. Its Farm Produce commands the Highest Prices on the world's markets.

Cheap Transit for Farmer's Produce, Government owned railways.

Government land is obtainable on easy terms; principal form of tenure, long leasehold. **Government loans to new settlers at low rate of interest.**

Government and municipal ownership of public utilities. Government telegraphs, insurance, savings banks, government trust offices, etc., etc. Government Sanatoria and Hot Mineral Water SPAS.

New Zealand's death rate is the **LOWEST** in the world. Its wealth per head of population is the **HIGHEST** in the world.

A country of strange and beautiful scenery. Marvelous geyserlands. Hot Lakes. Lovely Rivers. Magnificent Mountain Lakes. Grand Alpine Scenery. A Splendid resort for Americans who wish to escape the winters of North America.

When it is **Winter** in the United States it is **Summer** in New Zealand. Summer time is cool and pleasant for travel in New Zealand,

Excellent trout fishing and deer stalking. New Zealand's fishing waters, thousands of miles in extent, carry the largest trout known to anglers.

NOW is the time to visit this new and interesting country. The **New Zealand International Exhibition**, in the city of Christchurch, is now open and will remain open until April, 1907. Good hotels. Cheap transportation rates.

Mail steamers from San Francisco to Aukland, New Zealand, **every three weeks.**

Write for information and free literature concerning the Colony. Address

T. E. DONNE, *Superintendent Government Department of Tourist and Health Resorts*

WELLINGTON, NEW ZEALAND

HAVE YOU HEARD ABOUT Crofts & Reed Chicago

Factory-to-Family Plan — How to

FURNISH YOUR HOME WITHOUT COST

Given with $10 Order

Every woman who is interested in **home economy;** who wants to make her household expenditures bring the most value at the least cost, should send for our free book, "How the Housewife Can Furnish Her Home Without Cost." It tells how we give, **absolutely free,** articles of furniture, carpets, rugs, curtains, wearing apparel, dishes, etc., with orders for our high grade, **guaranteed** grocery sundries such as

Soaps, Toilet Goods, Baking Powder, Teas, Coffees, Flavoring Extracts, Breakfast Foods, Spices, Etc.

You see this is possible because of our Factory to Family Plan,—that is, supplying these goods **direct to you** thus saving **all** middlemen's profit. It is a plan by which you can make your grocery money buy both groceries and furniture. For example: In the next few days or weeks you will spend $2, $5 or $10 for the products above. If ordered from us you can get in addition a $2, $5 or $10 premium. With a $10 order you can have either of the chairs shown here or your choice of 1000 other article we carry. The Products we guarantee to please or refund your money. We allow 30 days trial to responsible people.

SPECIAL INTRODUCTORY OFFER

To give you an opportunity of testing our Products we will send you $2 worth for $1, charges prepaid. **No money in advance.** We'll send the goods first—if they prove satisfactory then you send the $1. Isn't that a fair offer? If not satisfactory, return at **our** expense. This offer is good only east of the Rocky Mountains. Send for order blanks, Premium Book and learn th big saving our plan affords. Do it today—a postal brings all and a free sample of Fine Toilet Soap

CROFTS & REED, Dept. 596, AUSTIN AVENUE, CHICAGO, ILL.

Given with $10 Order

Make 2 Berries Grow where 1 Grew Before

—Double Your Strawberry Crop

Every Strawberry Grower is anxious to double his crops.

It is easy if you go at it in the right way.

When you remove a crop, you also take with it a certain percentage of the soil's nutrition. You reduce fertility in just that proportion which was consumed in growing that crop. It is reasonable, then, that you should be vitally interested in returning to your land adequate means every year to keep up its fertility. Feed your land

Swift's Strawberry Special

A high-grade concentrated Strawberry fertilizer that has proven in actual test to be the best plant food. It quickens the growth, assists development and improves the quality of the plant.

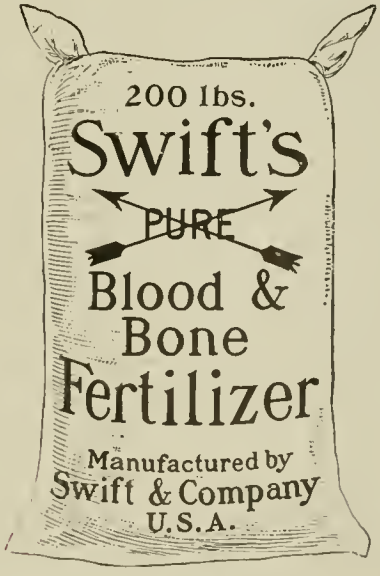
There are many good reasons for this. Its analysis, which is guaranteed, shows it supplies the soil with special elements practically advantageous to strawberry plant life. Its base is Pure Animal Matter comprising Dried Blood, Bone and Meat Tankage so proportioned in Ammonia, Phosphoric Acid, Potash from Sulphate of Potash, to produce an ideal plant food.

Write Today

Get our instructive Ferilizer Book. It will help you to make your Strawberry Beds pay bigger profits. Ask your nearest dealer for Swift's Strawberry Special. Remember "Two Berries grow where one grew before"—that is, Double Profit —and no more labor. To find out about "Swift's Strawberry Special" write to

Swift & Company, Fertilizer Department, Chicago.

Feed Your Hungry Land



Grow Apples that PAY the Producer and Please the Consumer

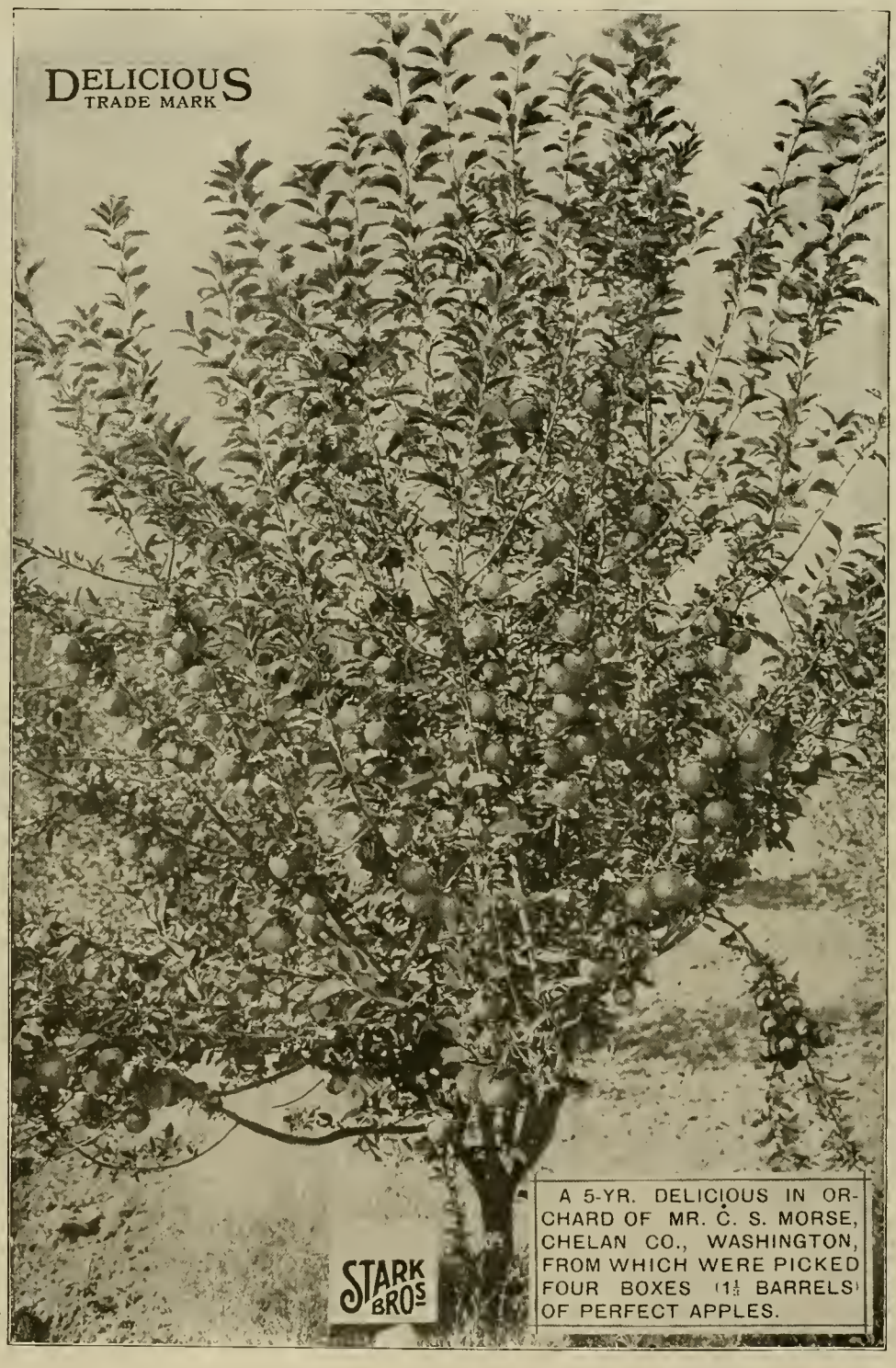
KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON. BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inferior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

For 82 Years STARK TREES

have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."



A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1⅓ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in
Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in
Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mlssissippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in
Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS CO

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

March 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

SCARFF'S SMALL FRUITS

3 Free

YOU who have fruit or vegetable gardens! Would you exchange them for lawn or meadow? No; there's too much pleasure, too much profit in them. Some of my customers make annually from $200 to $300 per acre with small fruits.

Now, whether you're an old hand at fruit growing or just a beginner, I can be an assistant to help you on to success by sending my new catalogue fully describing my new money-making varieties. Write me for special advice. It's free.

I am making some remarkable offers in this advertisement. I call them "Introduction Offers." They are made to popularize my goods in your vicinity.

The collections below grow in favor wherever ordered and are found in each case to be exactly as described in catalogue.

MY MODEL $5 FRUIT GARDEN

Better than ever for 1907. I will send by express for only $5.00 this model Fruit Garden comprising 150 **Strawberry** plants, 8 **Gooseberry** bushes, 24 **Currant** bushes, 150 **Raspberry** plants, 50 **Blackberry** plants, and 12 **Grape Vines.** The very best varieties of each. Fruit will begin to ripen in May and continue until October. Think of such an offer for only $5.00—worth fully double the amount.

Free with this collection—I will send 1 **Crimson Rambler rose, 1 Yellow Rambler Rose, 1 White Rambler.** All hardy. Finest climbing roses grown. When they bloom they're well worth $5.00. See catalogue for exact description of varieties. Copy free.

My Model $1 Vegetable Collection---Postpaid

Thirty-five large Packets of Prize-Winning Vegetable Seed. The most liberal offer ever made. Everything of the very best. Try it and have the best garden you ever had.

One packet each of **Asparagus, Beet, Carrot, Coffee Berry, Cauliflower, Celery, Watermelon, Onion, Parsnip, Sage, Spinach, Popcorn, Pumpkin;** 2 packets each of **Cabbage, Cucumber, Lettuce, Muskmelon, Radish, Squash, Turnip, Beans;** 3 packets each of **Sweet Corn and Tomato.**

Be sure to order early. This high-grade collection will more than please you. Catalogue gives name of each variety. Copy free.

My Model $1 Collection of Strawberries--Postpaid

I will send 100 choice **Strawberry** plants—25 each of the best four varieties for your section, postpaid, for only $1.00.

A beautiful ever-blooming **Baby Rambler Rose** (worth 25c.) free with each collection ordered before May 1.

3 SPLENDID BLACKBERRY PLANTS--FREE

Whether you order or not any of the above collections, I want you to know what I sell and my prices. These you'll find in my new, handsome catalogue for 1907. It is full of illustrations and detailed descriptions of my high-grade small fruits and nursery stock.

I have faith in my plants. So I offer to send you my catalog and three vigorous, well rooted blackberry plants absolutely free, postpaid. Thus I can prove to you that I excel in fine blackberries as well as in other small fruits. Many of my customers are realizing $300 per acre profit from my blackberries, strawberries and currants. 800 acres in nursery stock and farm, growing farm and garden seeds, poultry and small fruits, prove that I give what I claim—**honest goods at honest prices.** Sit down and make out your order now.

W. N. SCARFF

Practical Nurseryman

NEW CARLISLE, - - - - - OHIO

Make 2 Berries Grow where 1 Grew Before

—Double Your Strawberry Crop

Every Strawberry Grower is anxious to double his crops.

It is easy if you go at it in the right way.

When you remove a crop, you also take with it a certain percentage of the soil's nutrition. You reduce fertility in just that proportion which was consumed in growing that crop. It is reasonable, then, that you should be vitally interested in returning to your land adequate means every year to keep up its fertility. Feed your land

Swift's Strawberry Special

A high-grade concentrated Strawberry fertilizer that has proven in actual test to be the best plant food. It quickens the growth, assists development and improves the quality of the plant.

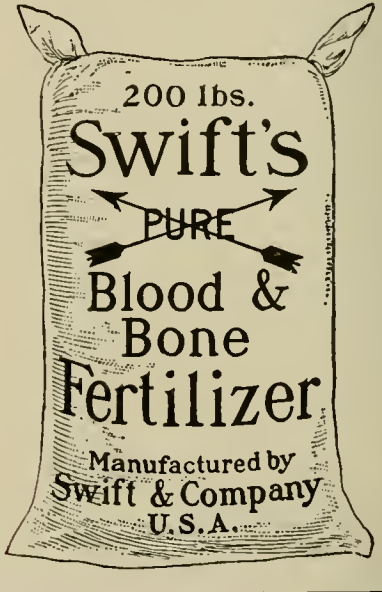
There are many good reasons for this. Its analysis, which is guaranteed, shows it supplies the soil with special elements practically advantageous to strawberry plant life. Its base is Pure Animal Matter comprising Dried Blood, Bone and Meat Tankage so proportioned in Ammonia, Phosphoric Acid, Potash from Sulphate of Potash, to produce an ideal plant food.

Write Today

Get our instructive Ferilizer Book. It will help you to make your Strawberry Beds pay bigger profits. Ask your nearest dealer for Swift's Strawberry Special. Remember "Two Berries grow where one grew before"—that is, Double Profit—and no more labor. To find out about "Swift's Strawberry Special" write to

Swift & Company, Fertilizer Department, Chicago.

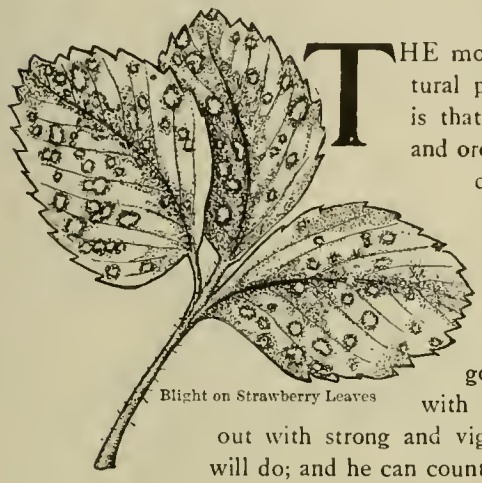
Feed Your Hungry Land



THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 3 Three Rivers, Mich., March, 1907 $1.00 a Year



Blight on Strawberry Leaves

THE most pressing horticultural problem of the time is that of protecting field and orchard fruits from the destructive influences of insect pests and fungous diseases. Every man who grows fruit knows approximately what good soil, well filled with plant food, and set out with strong and vigorous vines or trees will do; and he can count with reasonable accuracy upon what may be expected from the weather, taking a series of years as his basis for calculation. Market conditions for first-class fruit always are strong, and he is assured in advance a good price for all of the high-grade fruit he can put upon the market. But insects and fungi! Ah! there's the rub!

Civilization brings with it a train of problems—whether they be wholly evil only time may tell. The swift ships that ply the deep seas between our own and other lands, and make intercourse between strange peoples easy to the point of commonplaceness; the limited trains that annihilate distance, so quickly do they take us from one point of our country to another—these results and agencies of modern civilization have made the transmission and propagation of insects and fungi quite inevitable, and the result is that today scarcely a section of our country but is more or less affected by one or many of these enemies to plant life.

WHAT this means in dollars and cents is suggested by the statement made by Prof. M. V. Slingerland of Cornell, at the recent convention of New York fruit-growers, when he declared that the loss sustained by the state of New York alone from the ravages of insects amounted to $70 annually for each farm in that state. As in 1900 there were, in round numbers, 260,000 farms in the Empire state, it is readily seen that the sum reaches the appalling total of $16,000,000 for New York alone. Extend this over the entire country, and the results are even more startling. According to the most recent census figures on fruit (report for the season of 1899, as shown in United States Census Report, 1900) New York's production of fruit represented in that year just about one-eighth of the production, in value, of the entire country, or, to be exact, 12.1 per cent. Multiplying $16,000,000 by eight we have a total loss to the fruitmen of the country from insects alone of $128,000,000 each year. This sum doubtless has increased since those figures were gathered, first, because of the rapid increase in the area devoted to fruit of all kinds, and second because of the rapid increase of insect pests during the last seven years. For instance, the San Jose scale now affects orchards in thirty-nine of New York State's sixty counties. The scale was slightly known in that state in 1899, we are sure, though we have no statistics at hand on that subject showing how rapidly it has spread.

These figures and facts concretely set forth a condition that is practically universal and steadily growing worse as the fruit industry expands in magnitude. We have no data as to the relative loss sustained through fungous diseases, but as these are more insidious, and develop at most unexpected times and places, they command quite as serious and persistent attention as do the insects that destroy.

WHAT is the remedy? Eternal vigilance and the spray pump, is the answer of every practical fruit grower. Assuming that the losses for 1906 from insects amounted to $150,000,000 and from preventable fungous diseases half as much more—a total of $225,000,000—it is interesting to speculate how much of that tremendous waste and loss might have been saved by an expenditure of that sum in spraying machinery, insecticides, fungicides and in the labor of applying them. Remember that this loss is annual, while an investment in a good spraying outfit ought to cover the first cost of the work for many years. Certainly a modern spraying outfit, carefully operated and protected from the weather, ought to last, with slight and inexpensive repairs, at least ten years. At the New York meeting referred to the question was discussed, Will a man with ten acres of apples be justified in buying a power sprayer? The consensus of opinion was that such an investment was justified by an orchard of that size. And why is not the suggestion made by L. R. Bryant, so long the efficient secretary of the Illinois State Horticultural Society, one which opens up a large opportunity to enterprise? In an article in this issue of The Strawberry Mr. Bryant points out the need of commercial spraying outfits, with which trained men would go from orchard to orchard an from field to fi ld praying trees and vines at a price, just as threshing outfits now reduce the expense and labor of grain farming.

BUT suppose fruitmen will not spray? Suppose that they refuse to perform a work so manifestly in their own interest, and of such vital importance to the general public? In the case of affected animals the Federal government and State governments have been swift to act and to act solely with a view to the public good, killing without compunction or delay entire herds or flocks. In the case of humans who are afflicted with malignant contagion, there is no hesitation in enforcing sequestration and fumigation, no matter how painful or annoying the procedure may be to the individual. It is a principle of law that the man who sets the fire, even though it be upon his own premises, is responsible for the loss that may result to his neighbor. This principle of the priority of the common weal is so well established and now so universally recognized that there appears to be no good reason why it should not be applied strictly to the case we are now considering. Every state should

have a law making it necessary for everybody to keep his particular area as free from insects and fungous diseases as modern methods make it possible to do. Every man who has a garden or an orchard should practice spraying for his own and the public's welfare. There is a spraying outfit for every need—from the power sprayers for large field and orchard operations to the knapsack sprayer for the family garden; and there is some insecticide or scalecide or fungicide for practically every enemy of plants.

AND though we say that all should spray, and trust to nature to do nothing in the way of taking off these enemies, yet it is gratifying to know that nature works hand in hand with us in this direction. In preserving a balance nature has wonderful laws of compensation which she enforces with consummate efficiency. In his address before the New York meeting referred to above, Prof. P. J. Parrott, entomologist of the New York (Geneva) Station, said an encouraging word to the fruitmen on this subject. Speaking of the San Jose scale, he declared that it was probable that the insect will be less troublesome in years to come because of the fight made against the pest, and also because natural enemies will appear which will help hold it in check. He cited a few other insects to show that this is probable. In California, where the scale first appeared in this country, the growers now pay little attention to it. The wheat midge, which was so destructive a number of years ago, has had its day, and is hardly thought of now. The potato beetle is not so destructive as it was for a short time after its advent. The parasite which preys upon the scale is at work in New York, and with intelligent work on the part of the growers, there is no reason why the insect cannot be held in check. But, he added, those who don't fight the insect will lose out.

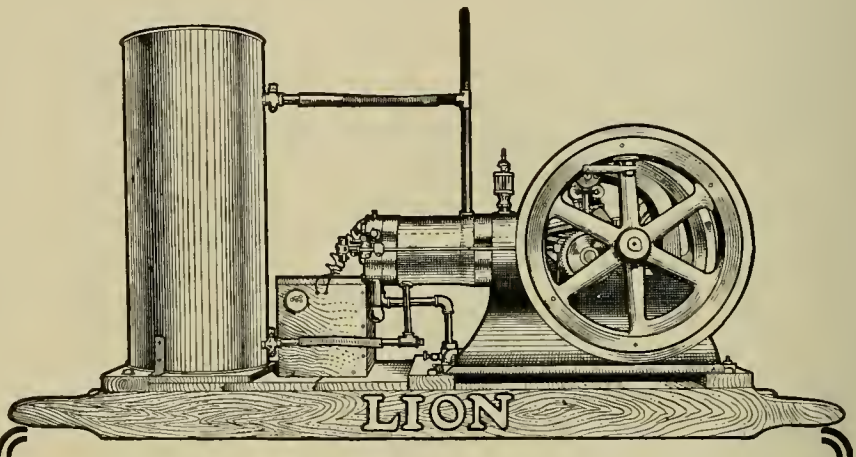
An Object Lesson in Spraying

By Louis Bregger

I DO not know that I can give any great results from my own spraying, in that I have not done it as thoroughly as is recommended and as should be done. My own experience has shown first, that it has paid, and second, that it would have paid more had I been more thorough. The great trouble with me, as with other fruit men around me, is that we are trying to carry on a little stock farming, raise general farm (grain) crops, and grow fruit at the same time, with the result that none of these three lines is well done. Taking spraying—when it is time to do this, there also are a lot of other things to be done, and with help as scarce as it has been, the result may be imagined. "Get out of some one or other of these lines and attend to fruit," will be urged. Well, that is what some of us are doing, but we are in the transition stage. Personally, I am going into fruit gradually, and dropping other crops as fast as I can.

There is more spraying being done in our vicinity every year and the work is more thorough. Perhaps no greater incentive has been given in recent years than by a very striking object lesson given us by D. W. Wadsworth, who, two years ago purchased a farm in this vicinity, or rather a portion of a farm containing a large apple orchard. There are thirty acres, but taking out house, barns, farm yard, etc., and allowing for vacant places in the orchard, there are about thirteen acres in orchard, or nearly four hundred trees. This orchard had been neglected for years, little if any spraying having been done. Mr. Wadsworth also trimmed the trees and cultivated, but it was his systematic and very thorough spraying and the consequent results that drew general attention to this orchard.

There were very few apples in Mich-



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

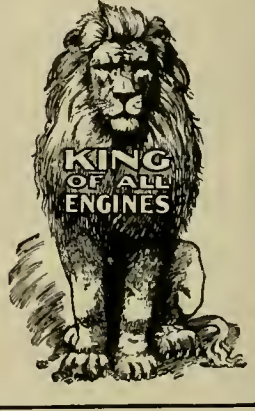
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

BALLOU MANUFACTURING CO., Belding, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in
Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

BALLOU MANUFACTURING CO.,
Successors to Lyons Engine Co.
BELDING, MICH.

igan in 1905. It was noted generally that those who sprayed had apples—those who sprayed the best had the most and best apples. There is an outside row of apple trees along this farm—also a continuation of the row that belongs to the former owner. Mr. Wadsworth's part of the row hung full of fine fruit—there was NONE on the rest of the row. Everyone who went by could see the lesson, and this lesson was a subject of general comment. I do not know the figures, but Mr. Wadsworth did well on his crop that year, especially as there was such a short crop in the state.

Last year (1906) this orchard, with the same care and thorough spraying, had another large crop, if anything greater than the year before. The apples were bought by a local buyer on the tree, for $2,150. The "freeze" came and while many of the apples were injured, the buyer, it is understood, still came out more than even.

It is being realized more and more in this section that we must spray or get out of the business, especially now that San Jose scale is gradually getting into our orchards.

Outlook Farm, Bangor, Mich.

Spraying an Essential to Success

By L. R. Bryant

Former Secretary Illinois State Horticultural Society

IN our orchard practice, spraying is considered as one of the essential things to be done as regularly as the season comes around, with even a little more attention as to the exact time than with the other work.

It is no "fad"with us, and we certainly do not do it for the fun of the thing, but because experience has proved that it is necessary for the production of good fruit.

There is too much poor fruit produced in proportion to the good--too much of the No. 2 grade, a little too good we think for the cider mill and still it is No. 2, and we must sell at a low price and help cut the prices on better fruit, and worst of all it gluts the market at times.

Nice fancy winter apples can, we find, generally be sold at good fair prices, and the problem then is how to grow as large a proportion of them as possible. Spraying we consider one of the essentials, although spraying alone will not always produce a fancy crop.

It has by no means reached the point of an exact science. Some seasons the effects are better than others, some seasons it is much less needed than others; but no prudent orchardist can afford to neglect it, because he cannot foresee what the season is to be.

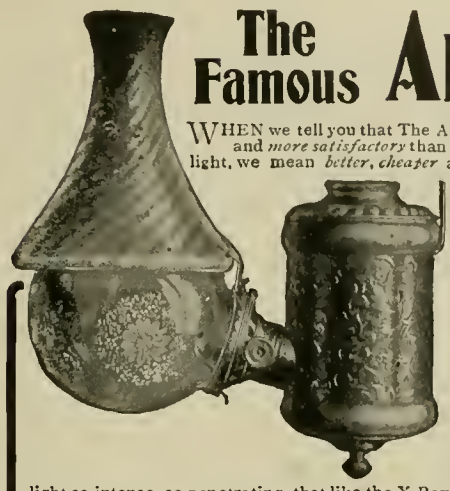
Orchard spraying not only makes better fruit when properly done, but it makes healthier trees. Orchards regularly sprayed with arsenites and Bordeaux mixture are not troubled with the canker worm, and their foliage is fresher and as a rule hangs on longer in the fall. Riding on the cars through what is called "the apple-belt" of southern Illinois, I have seen orchard after orchard, in the month of September, almost bare of leaves, while occasionally one was seen which was green and healthy. By common consent it was agreed that the orchards with healthy foliage were the ones which were sprayed and otherwise well cared for, and that those with the deficient and unheathy foliage were unsprayed. While the trees with the heathy foliage may not always produce paying crops, you may set it down as a pretty sure rule that those with poor foliage never do.

It has got to the point where the successful commercial orchardist must spray, and I am not sure but the grower of small fruits as well, although I am not so well prepared to speak regarding them. If that time has not already come, be assured it soon will.

I will not take time or space to give directions and formulas, as these can be had for the asking, but one word of advice, if the work is new to you. Follow the rules and directions given by the horticultural society or experiment station of your state, and do not experiment or use new or unknown compounds until you have had some experience; and do your work thoroughly and at the proper time. Buy only the standard makes of pumps and materials and let all knapsack pumps and "squirt guns" alone for anything except garden work.

In communities where no one has many trees it would seem that it would be a profitable business for some one to thoroughly post himself on the subject and procure an outfit and go around and spray

The Famous Angle Lamp



WHEN we tell you that The Angle Lamp will light your home *better, cheaper* and *more satisfactory* than gas, electricity, gasoline, acetylene or any other light, we mean *better, cheaper* and *more satisfactory* and are ready to back these statements with *proof*. For our lamp is constructed on a new principle of oil lighting (patented by us) which completely does away with the smoke, odor and bother of the ordinary lamp and yet makes "The Angle" so much cheaper to burn than even the ordinary lamp that it PAYS FOR ITSELF.

Better Than Gasoline.

Because *all* gasoline lights use mantles. And *all* mantle lights are intense, glaring, penetrating. That is why one *conscientious* American manufacturer tries to give his mantle at *least a little* of the soft yellow tone which makes the kerosene light. And absolutely refuses to make a "pure-white" mantle. For he knows what all students of lighting methods know—that the "pure-white" mantle creates a light so intense, so penetrating, that like the X-Ray it pierces the retina of the eye, soon causing blindness. And yet some people, because the very *penetrating qualities* enable them to read at a long distance as from the fixtures, still use such eye-destroying lights.

Then, too, gasoline is one of the most dangerous illuminants; while the constant breaking of the delicate mantles makes it expensive far beyond the cost of the fuel.

The Angle Lamp, on the other hand, while giving a light of the finest quality known to science, is absolutely safe, requires little attention and never gets out of order. Mr. E. C. Parmelee, Highlands, N. J., sums it up briefly in a recent letter, "My Angle Lamps," he says, "have saved 20 times their cost in oil burners, chimneys and cuss words."

Better Than Acetylene.

"The Acetylene Light" says Dr. David T. Day, Chief of the mining and mineral resources division of the U. S. Geological Survey, "is *even more glaring* indoor than the arc light outdoors." Dr. Day places Acetylene as the worst of all artifical lights for home use—more penetrating and more harmful than the mantle lights.

But Acetylene has a worse feature, even than this—the danger. It is one of the most explosive and probably the most penetrating gases known to science,—so penetrating is it that it sifts through even the water with which all acetylene generator manufacturers *presume* to seal the gas-storage tanks. And don't think a large quantity need sift through to cause trouble. For any mixture of acetylene and air from one part of gas to three of air, up to *one part gas* to *40 parts* of *air* may explode!

How strong the contrast between this dangerous system of which you never can be sure and the safe, clean Angle Lamp, which, because of its double fount construction and "angle" flame, absolutely cannot explode. And how strong the contrast between the intense, eye-straining acetylene light and the soft, warm, restful Angle Lamp!

Better Than Ordinary Lamps.

"The oil lamp," says Dr. Day, in another part of the article above referred to, "yellow, steady, fairly soft, is still the supreme reading light in general use." This splendid *kerosene quality* of light forms the only ground for comparisons between our lamp and the old fashioned kind. Because The Angle Lamp is an entirely new principle of oil lighting which, while generating a far better and more brilliant light than the old style lamp, has completely done away with all the smoke, odor and bother of the old style lamp.

The Angle Lamp is lighted and extinguished as easily as gas. It requires filling only once or twice a week, which may be done with absolute safety while the lamp is lighted. It never smokes or gives the slightest odor whether the light is turned at full height or turned low like gas. It is absolutely safe.

And yet the very features which make The Angle Lamp the most convenient light ever invented by giving perfect combustion of oil, make it also the cheapest. *For one quart of oil burns 10 hours.* Figure what that means in economy!

Now if you have read this advertisement closely you understand why we offer to prove what a completely satisfactory light The Angle Lamp is by sending any lamp listed in our catalog "54"on

30 DAYS' TRIAL. And you will understand why such people as ex-Pres. Cleveland, the Rockefellers, Carnegies, etc., who care nothing about the economical features of the Angle Lamp have chosen THIS oil-burning lamp for lighting their homes and estates in preference to gas, electricity, acetylene or any other system. The Angle Lamp will please you as it does thousands of others. Write for our catalog **54**, listing 32 varieties from $1.80 up, and giving you information about *all* lighting methods that would cost you hundreds of dollars to collect.

THE ANGLE MFG. COMPANY, 78-80 MURRAY STREET, NEW YORK.

DEMING Get something reliable when you buy.

Barrel, Bucket, Knapsack, Hand and Power Outfits. No greater variety nor better types than Deming

SPRAYERS

For trees, shrubs and vines. Model appliances for poultrymen for whitewashing, disinfecting, etc.

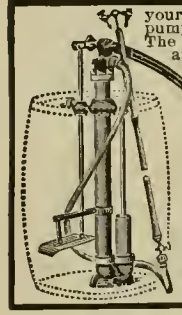
Write for catalogue with full particulars.

The Deming Co.,
415 Depot Street, Salem, Ohio.

General Agencies in Principal Cities

Henion & Hubbell., Western Agents, Chicago.

SPRAYING



your fruit with a good spray pump means dollars to you. The **Eclipse** earns big profits and lasts for years. We invented the

ECLIPSE SPRAY PUMP

after experimenting for years in our own orchards with the common sprayers. We have it illustrated in our 40-page catalog—send for it to-day—it's brimful of useful and interesting reading for the gardener and fruitman.

MORRILL & MORLEY
Benton Harbor, Mich.

HURST SPRAYERS ON FREE TRIAL

No Money in Advance—pay when convenient. The "FITZ-ALL" fits-on-any-barrel or tank. Sprays all solutions. Proven best and most durable. **Guaranteed Five Years.** *Brass Ball Valves, Cylinder, Plunger, etc. Strainer Cleaner and 3 Agitators. 200 lb. pressure.* A boy can operate it. After trial if you keep it—pay when you can. **Wholesale** price where no agent—**Agents Wanted.** Special Free Offer for first in each locality. "Spraying Guide" and full information FREE.

H.L. Hurst Mfg. Co., 25 North St., Canton, O.

the trees in the neighborhood, charging according to the time spent and material used. The same outfit could be used to spray all kinds of fruits, and also potatoes, and for spraying chicken houses and other buildings.

Princeton, Ill.

WHY do the New York and Michigan apples no longer hold their former proud place in the market? The question finds answer in the following paragraph that recently appeared in the Lincoln, (Neb.) Journal: "Comparatively a few years ago the supply of foreign apples came from New York and Michigan. Purely Western apples were not competitors. But conditions have changed and the excellent apples of Colorado have made that state a dangerous competitor to those shipped from Michigan and New York. A grocer is authority for the statement that not more than 50 per cent of the Eastern stock is sold now. Colorado produces a Jonathan apple that is a prime favorite and brings about the highest figure here. The success of the Colorado Jonathan, he thinks, ought to be a lesson to the Nebraska fruit grower, who fails to hold his own because he neglects to spray his trees and hand-pick the fruit. Because he does not do this the fruit rots and is in its grave before it has had an opportunity to get into the race. Colorado Jonathans bring 70 cents a peck right now, and home-grown apples are down and out."

Just Beginning to Spray in a Great Fruit District

ONE of the most extensive fruit-growing counties of Michigan is Kent, of which Grand Rapids is the county seat. Yet we find in a recent issue of the Fruit Belt, published in the city named, the statement that "O. W. Braman, who owns a forty-acre fruit farm a few miles north of Grand Rapids, claims the distinction of being the first grower in Kent county to secure a complete power spraying outfit. The outfit consists of a two and a half horse-power gasoline engine and a 200-gallon tank mounted on steel trucks. Mr. Braman is very much pleased with his purchase."

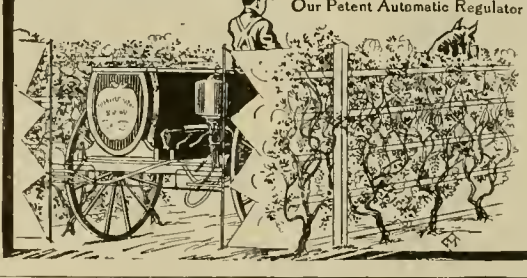
It seems all but incredible that this is true, yet we may not doubt it, coming as it does from so reliable a local authority. We haven't the figures before us to show how vast is the business done by Kent county, but it reaches up into the hundreds of thousands annually. It would be interesting to know just how much the loss has been from failure to spray, but it is within modest estimate to say that it would equal the total sum received from several annual crops, while the future losses from past negligence—from allowing fungous disease and insect pests to multiply and increase—is beyond estimate.

We sincerely hope that Mr. Braman's example will be followed by hundreds of his neighbors and that spraying--thorough, effective spraying--is to become as general in future as its neglect has been in the past.

TEXAS is regaling herself just now in true summer-time fashion. A dispatch from Galveston dated January 11 says: "Strawberries, large, red and luscious, at $2.50 to $3 per crate of twenty-four quarts, and going begging at that, is a condition not often prevailing in mid-winter even in the delightful coast country climate of Texas. However, many things happen in Texas which never occur in any other state, and the Texas coast country springs as many surprises as any other section. Beginning early in December strawberries began to arrive on the local market, and since that time the consignments have increased to such a volume that local merchants have had to refuse to accept the fruit until stocks were reduced. From $6 per crate the price has dropped until yesterday they went begging at $2.50, one merchant stating that a few more days of warm weather would see strawberries selling at the midsummer price of $1.50." Other reports from the Texas coast country say that berry plants and fruit trees are putting on regular summer foliage, and that unless the warm weather holds out the balance of the winter, the spring and summer crops will be greatly delayed. Also that a freeze would do an immense amount of damage to orchards and fields.

Horse-Power Spramotor

FOR ORCHARDS, VINEYARDS AND ROW CROPS



Our Patent Automatic Regulator stops the machine at 125 lbs. pressure starting again at 100 lbs. pressure.

Automatic Nozzle Adjuster, insuring correct direction of spray.

Automatic Nozzle Protector, guaranteeing nozzles against clogging.

Everything under control of driver without stoping.

Is used and recommended by the Department of Agricultural.

Send for 86 page booklet O.

Agents wanted.

SPRAMOTOR CO.,
BUFFALO, N. Y. LONDON, CAN.

FRUIT TREES

Start your orchard now. Fortunes have been made by it. Start right by planting hardy, well cultured stock, that will live anywhere—guaranteed—materially less than agent's price—ask for prices on 1,000 lots. Illustrated Catalogue free.

CHATTANOOGA NURSERIES

Box 10 CHATTANOOGA, TENNESSEE

THE BABY RAMBLER, an everblooming, perfectly hardy rose, a sturdy, erect little bush, growing two feet high, literally covered with large clusters of crimson blossoms the entire season. Mail size, 10c, 3 for 25c. Send for it. It will please you. We grow everything of the best for **Orchard, Vineyard, Lawn, Park, Street, Garden and Greenhouse.** Rarest new, choicest old. We send by mail, postpaid, **Seeds, Plants, Vines, Bulbs, Roses, Etc.,** and guarantee safe arrival and satisfaction. Larger by express or freight. **An elegant 168-Page Catalogue FREE.** Send for it and see what values we give for a little money. Many choice sets cheap. Direct deal will insure you the best and save you money. 53 years, 44 greenhouses, 1200 acres.

THE STORRS & HARRISON CO., Box 407, PAINESVILLE, OHIO.

Spraying Strawberry Plants

By F. E. Beatty

SPRAYING somewhat resembles fire insurance. The satisfaction of knowing that you have protection is worth more than the cost. Just when to spray depends largely upon what you intend spraying for. If it is for a leaf-chewing insect, start the machine at first sight of the intruders, using arsenite in some form. Paris green will send most any insect belonging to the leaf-eating family to the happy hunting grounds, except the rose chaffer. These seldom attack strawberry plants, but should they put in their appearance, Swift's arsenate of lead, used at the rate of five pounds to fifty gallons of water, will turn their toes to the sun.

Arsenate of lead is an ideal insecticide and can be used exclusively. The only objection to it is its cost, but it never should be combined with Bordeaux mixture, because when they are put together one generally will neutralize the other and neither will be effective. We have combined them, but the results never were so good as when they were applied separately. One great advantage in arsenate of lead is the fact that tender foliage is not so sensitive to it as to Paris green.

In preparing the arsenate of lead for insects like the leaf roller, sawfly or beetle, take two and one-half pounds; dissolve it in three gallons of hot water. Stir until it becomes creamy; then add enough water to make fifty gallons. The five-pound strength is used only when fighting such insects as the rose chaffer or hard-shelled potato beetle.

Those who are contemplating ordering Swift's arsenate of lead should order early, as the demand for it at spraying time is far greater than the supply. It now costs about 16 or 18 cents per pound for hundred-pound kegs, and more when ordered in less quantities. Any wholesale drug house will furnish it.

Paris green is rapidly advancing in price. If ordered at once it will cost about 28 cents to 30 cents per pound in hundred-pound lots, and possibly more when bought in smaller quantities.

In preparing Paris green we always dissolve it with lump lime. This neutralizes the acid, which greatly lessens the danger of burning the foliage. When used alone, put eight ounces of Paris green over two pounds of lump lime. Pour over this two gallons of hot water. When it starts slaking, stir to prevent burning. When cool, add enough water to make forty gallons. If used in connection with Bordeaux mixture, ten ounces can safely be used. Remember this quantity is for strawberry plants and not for peach or plum trees.

If you noticed any leaf spot on your strawberry plants when laying them by last fall they should be sprayed with Bordeaux mixture next spring. Give the first spraying shortly after uncovering the plants. Repeat in ten days, and again just before the buds open. If any sawfly or eating insect is present, add Paris green with second and third spraying. The simplest way to prepare Bordeaux mixture is as follows:

Put four pounds of blue vitriol in a coarsely woven sack (coffee sack will serve), put twenty gallons of water in a barrel and fasten the sack containing the vitriol to top of the barrel so the bottom of the sack will touch the water. This allows air to come in contact with the vitriol, which will assist in dissolving it quickly. Now take four pounds of lump lime. Pour over this three gallons of hot water. When it starts slaking, stir to prevent burning. When thoroughly slaked, add enough water to make twenty gallons. When cool combine the vitriol and lime solution which will make forty gallons of Bordeaux mixture.

Although Bordeaux mixture seems to be quite effective after it has been made

MAKING BORDEAUX MIXTURE

several weeks, it is best to use it immediately after making it if possible to do so.

The price of blue vitriol also is advancing, and a supply should be ordered at once. The price now is about 9 cents per pound in hundred-pound lots. We have our order in for more than one ton of vitriol and in this quantity it cost us 8 cents per pound.

The advance in price of spraying material only shows how rapidly the demand is increasing. In fact, spraying is one of the important features which go to make up the complete combination in fruit growing. Our hundred acres of strawberry plants were sprayed eight times last season and we shall continue to spray, no matter how high the price of material may go. This careful spraying is done as a preventive, or in other words, to insure our plants against the attacks of insects or fungi.

We realize that Bordeaux mixture is merely a preventive and not a cure. When leaves are continually kept copper-plated it is impossible for fungi to get control, as the spores cannot live in the presence of Bordeaux mixture. By adding Paris green, the leaves also are covered with arsenate which destroys any leaf rollers before they can draw the edges of the leaf together. After leaves are folded tightly, it is quite difficult to get the arsenate where the leaf-roller will be affected by it.

When the leaves of your plants curl up, having the appearance of suffering for moisture, it indicates that mildew is present. At the first sign of this, spray with liver of sulphur, using one pound to forty gallons of water. This can be used after the berries have formed, and to be effective it must be used when fresh.

When strawberry plants are taken from propagating beds that have been scientifically sprayed, and the grower follows clean cultural methods, burning the bed over after fruit is picked, then spraying is not essential, unless weather conditions are favorable to fungous growth, or some

TYPICAL SPRAYING SCENE IN STRAWBERRY FIELD

insect attacks the plant. These are contingencies that must be kept in mind as possibilities, and the strawberry grower should be prepared to meet them when they arise. It is the man who always is ready to do the right thing at the right time that makes a success of his business year in and year out.

How to Keep Fungi in Check

By M. N. Edgerton

A STRAWBERRY leaf affected with disease can not perform its entire functional work. The working power of each leaf is reduced in proportion to the amount of its surface covered by the fungus.

Strong, healthy plants are much less subject to the attacks of disease than are those which are small and weak.

Cultural methods that promote strength and vigor in individual plants aid in keeping the foliage healthy. The method of culture followed by us, the double-hedge row, is conducive to strong, healthy foliage because individual plants have an abundance of room in which to spread their foliage so that every part of every leaf is bathed in sunlight.

The character of the season also has an influence upon the prevalence of fungous diseases. Wet, cloudy weather is favorable to the growth of fungus. Sunshine discourages its growth. The season of 1906 was remarkable for the lightness of its rainfall and the large number of bright sunshiny days.

Of the dozen varieties in our new fruiting bed only one, the Nick Ohmer, showed the presence of a fungus. One spraying in mid-summer checked the spread of the disease.

Spraying is unquestionably one of the factors in the combination that will give highest results in strawberry culture, and it is our purpose to make this one of the basic principles in our cultural methods in the future.

As is the case in dealing with the enemies of tree and bush fruits prevention is much better than cure.

The enemy should be kept routed by timely, regular, efficient spraying. Thorough work of this kind in the propagating bed will lessen the amount required in the fruiting bed.

Petoskey, Mich.

New Yorkers Discuss Spraying

NEW YORK fruit-growers held a meeting at Penn Yan in January that is said to have been one of the most valuable and interesting in the history of the association. It is remarkable how the subject of spraying and its importance to horticulture dominated the meeting, cropping out in the midst of the discussion of other themes all through the sessions.

State Entomologist Prof. E. P. Felt, reported that although the San Jose scale had appeared in several new places, the total injury from insects during 1906 had not been so great as in previous years. However, the codling moth had done great damage in some orchards.

Another word of cheer came from Prof. U. P. Hedrick who, reporting for the committee on plant diseases, said that with the exception of a small area in which pear blight had been very prevalent, the state had been exceptionally free from fungous diseases. Apples were almost free from fungi even in unsprayed orchards. He warned growers not to neglect spraying on this account, however, but urged them to continue spraying for fungous diseases, for apple-scab is an ever-present enemy of the apple-growers and preventive measures should not be abandoned.

The report on experimental orchards submitted by F. E. Dawley, was of especial interest from the spraying side of the question. The experimental orchards referred to were of dwarf apple trees, and the fact that they are small and so more readily accessible to the spraying machine, gives to them their chief interest and value. With San Jose scale spreading so rapidly over the state the growers recognize the importance of this feature to the future of tree fruits.

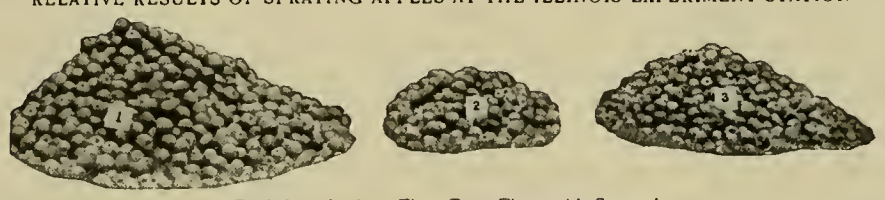
"Fighting the Scale" was the suggestive title of a paper by L. L. Morrell of Kinderhook. He spoke out of personal experience with the scale. In his experience the scale traveled the first year of his acquaintance a distance of two and a half miles, and nothing but Kieffer pear and sour cherry trees were immune from its fatal visitation. The speaker related some experiences and made some suggestions that are of high value. He declared that he had killed more trees by spraying them with crude oil than he had lost from the scale. He now uses lime-sulphur mixture, made by using fifteen pounds of sulphur and twenty pounds of stone lime to fifty gallons of water, preparing the mixture as follows:

> Put sixteen gallons of warm water in a barrel and add the lime; this will boil nearly to the top of the barrel; when it reaches this condition add the sulphur, and boil with steam until the mixture takes on a dark amber tinge.

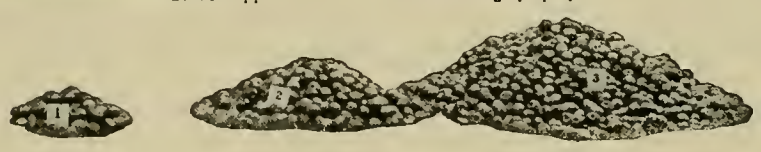
Mr. Morrell urged the importance of following this method, saying that the ingredients remain in more complete solution when it is boiled so thoroughly than when it is used at the stage where it becomes green. He also urged the importance of thoroughness in the work. Take plenty of time, he said, and use sufficient mixture to cover every square inch of surface of the tree. He believes that the lower part of trees are most likely to be neglected. No one ever should try the impossible task of spraying against the wind. He had come to the conclusion that the lime-sulphur mixture is a good fungicide, and had never had any evil consequences upon the men who apply it. Other growers, however, claimed the mixture was injurious to the skin, cracking the hands and burning the face.

Dr. F. P. Krauty, of Berkeley, W. Va., favored the use of oil, and read a paper on "Controlling the Scale With Soluble Oils," in which he said that oil was more easily applied, more easily prepared, covered a larger surface than did the lime-

RELATIVE RESULTS OF SPRAYING APPLES AT THE ILLINOIS EXPERIMENT STATION

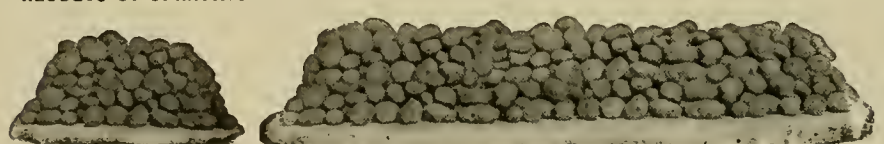


Graded Apples from Three Trees Thoroughly Sprayed



Graded Apples from Three Trees not Sprayed

RESULTS OF SPRAYING IRISH POTATOES AT THE VERMONT EXPERIMENT STATION



Total yield of sprayed potatoes per acre, 291 bushels; total yield of unsprayed potatoes per acre, 99½ bushels. Profit of Spraying, 191½ bushels per acre.

sulphur mixture, and that the cost was less. He said he had been able to hold the scale in check by the use of soluble oil, first employing it at the strength of one to fifteen, and afterward reducing it to one to twenty. Dr. Krauty's report was not in harmony, however, with the experience of the New York growers, who have found nothing so satisfactory in dealing with the San Jose scale as the lime-sulphur mixture.

Prof. P. J. Parrott, of the Geneva (N. Y.) Station told the meeting of the results secured in some cooperative work being done by the Station and fruit growers in the state who were treating some old, high-headed apple trees. He found that the best results on these large trees have been obtained by using alternately crude oil and the lime-sulphur mixture, using one preparation one year and the other the next. But on small trees they had found nothing else so effective as the lime-sulphur mixture.

The following table showing cost of making different spray mixtures was prepared and presented by Professor Parrott. In each case the quantity referred to is fifty gallons:

Bordeaux mixture	$ .33
Bordeaux mixture, with ¼ lb. Paris green added	.44
Lime-sulphur mixture	.50
Lime-sulphur mixture, with sal soda	.70
Lime-sulphur mixture, with caustic soda	.81
Kerosene limoid, 10 per cent	.82
Kerosene limoid, 15 per cent	1.23
Kerosene limoid, 20 per cent	1.64
Scalecide, 5 per cent	1.25
Scalecide, 8 per cent	2.00
Scalecide, 10 per cent	2.50
Crude petroleum	5.50
Kerosene emulsion, 10 per cent	.65
Kerosene emulsion, 25 per cent	1.56
Crude oil emulsion, 10 per cent	.67
Crude oil emulsion, 25 per cent	1.67

After presenting the figures concerning the annual loss to fruit growers through insect pests quoted in the first article in this issue, Prof. M. V. Slingerland of Cornell spoke instructively upon some features of the spray question from the practical viewpoint. He said, among other things, that the best way to get rid of borers seems to be to dig them out, but coal tar has proved a good preventive, and no bad effects have followed its application during the growing season.

Thorough cultivation is helpful in holding some insects in check; it is also well to consider varieties which are resistant. Spraying, however, must be the main reliance of fruit-growers in fighting insects, although there has been much damage by spraying with the wrong preparation. Prof. Slingerland said that it was possible the San Jose scale will prove a blessing in disguise, for it will teach thorough spraying. Of all the spraying now done, less than half is well done, and there will be much loss before growers appreciate the danger of the scale. Spraying apparatus is much approved; a pressure of at least 100 pounds to the square inch must be maintained, but successful work depends upon the man.

In spraying for codling moth, it was recommended to use two pounds of arsenate of lead to fifty gallons of water; or if Paris green is used, use one-half to three-fourths of a pound to fiifty gallons of water.

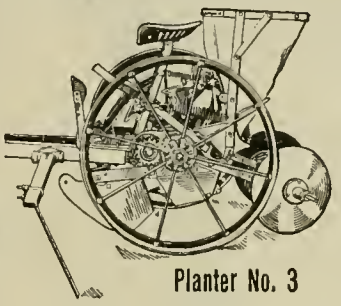
Among the speakers at this unusually interesting meeting was C. B. Cook, of Owosso, Mich., vice-president of the Michigan State Horticultural Society. His theme was "The Commercial Strawberry Bed." Referring to systems of culture Mr. Cook said that under some conditions the matted-row system is very successful, as is also the hill system under special conditions, and in charge of the right men. The hedge-row system is best for most growers, if rightly carried out. The speaker said the question of fertility is an important one, and he thinks he knows less about it now than he thought he knew when he started. At one time he gained 100 bushels of berries per acre from a heavy application of raw phosphate rock alone. Humus is very important in growing strawberries, but where the strawberries are rotated with clover, and where they are mulched, there will be plenty of humus.

Officers were elected for the ensuing year as follows: President, J. R. Cornell, Newburg; first vice-president, Ira Pease, Oswego; second vice-president, Grant Hitchings, Syracuse; third vice-president, Luther Collamer, Hilton; fourth vice-president, Albert Wood, Carlton Station; secretary, E. C. Gillett, Penn Yan; treas-

ASPINWALL POTATO MACHINERY

Machines With A Pedigree

Great Improvement for 1907



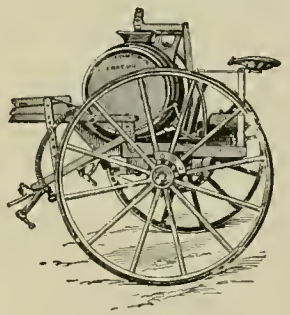
Planter No. 3

Have you seen our latest ?

Aspinwall Planter No. 3

With Sack Hopper, plants 99% good. No bridging in hopper.

The most perfect machines for the purpose in the world. With our perfection **Cutters, Planters, Sprayers, Diggers** and **Sorters,** potato culture may be made profitable. Send for our illustrated catalog. Contains valuable spraying information, tables, etc.



Sprayer

Booklet on Potato Culture" Free.

Aspinwall Mfg. Co.

215 Sabin St., Jackson, Mich.

HURST POTATO & ORCHARD SPRAYER ON FREE TRIAL

As Potato Sprayer.

No money in advance—Pay when convenient. **Sprays everything**—Trees; Potatoes, etc. 4 rows at a time—20 acres a day. *Doubles your crop.* Even 2-acre growers say: "It pays for itself first season," as it has so many uses. A 16-year-old boy can operate it with ease. Brass Ball valves, Cylinder, etc. *Guaranteed 5 years. Wholesale Price*—(where no agent) AGENTS WANTED. After trial, if you keep it, we make terms to suit you **Special Free Offer** to first one in each locality. "SPRAYING GUIDE" and full information Free. We pay Freight. Write today.

H. L. HURST MFG. CO., 75 North St., Canton, O.

As Orchard Sprayer.

urer, C. H. Darrow, Geneva; executive committee—B. J. Chase, Sodus; S. W. Wadhams, Clarkson; L. L. Morrell, Kinderhook; George W. Potter, Buffalo; T. B. Wilson, Hall's Corners.

Spraying at "Pioneer Gardens"

By Irving C. Smith

WE began using a spray pump in spring of 1904. We made more or less mistakes the first year; but where work was well done success followed in its wake.

Our work with Bordeaux has been chiefly confined to potatoes, celery, tomatoes, currants, gooseberries, and we think most of it will come under the head of "Striking results."

Before we used the spray our Early Ohio potatoes would blight and die before the proper time. With the spray they ripen naturally. The celery blighted so badly as to be almost worthless, but with the spray it grows to the end of the season.

A neighbor was looking at our beds this past season—we had 275,000 plants—and remarked, "The spray does the work all right; mine are blighted so they are not worth anything!" Ours were doing very well.

Three years ago the leaves blighted and fell off of the currant bushes soon after fruit was picked. Two years ago we sprayed and the leaves were still green when the hard killing frosts came in the fall, while the bushes of our neighbor (without spraying) were stripped bare before September 1.

In 1905 we neglected our gooseberries (we have only sixty bushes) and the berries were about as fuzzy as a bumble bee, and about as salable. This season past (1906) we sprayed properly and got a fine crop which brought $1.26½ per case.

Three years ago (1903) our early tomato crop was nearly a failure. In 1904 we sprayed and from a little over an acre of early tomatoes we sold over $300 worth before the main crop was in market, and had about the only patch of early tomatoes in the neighborhood that was not killed by blight.

The wax beans have been struck by fire blight two or three times and we rushed to the rescue and checked the work of the blight as one might check flames in the dry grass.

We use an Eclipse hand pump and Vermorel nozzles.

Green Bay, Wis.

The Other Kind of Chestnuts

The pet niece (who, on valuable uncle's visit, has been allowed to stay up for dessert): "Oh, Uncle Tom, father said you would be sure to bring out some of your old chestnuts. May I have some? Do, please!"—Punch.

The Empire proves its claims

CLAIMS are *words*, proofs are *facts*.

Mere claims have often sold goods. Proofs are a record of dollars made.

You, or any one else, don't want the cream separator that *claims* the most. You want dollars from your handling of milk.

Therefore you want the *proved* separator, the dollar-making

Frictionless

Empire Cream Separator

Here are some *facts* that will interest you: The Empire

Turns the most easily—is practically frictionless;—

Is most easily washed—a few simple parts without a cranny or crevice in them;—

Gets all the cream, and the highest quality of cream at that;—

Is durable — will not get out of order — will cost you practically nothing for repairs.

These facts spell dollars for you, if you give them the opportunity.

Let Us Prove Them

Send for our new catalogue and proofs. Ask for our free dairy books too. They cost you *nothing*, but will show you where you can make *dollars*.

Empire Cream Separator Co.

Bloomfield, N. J. **Chicago, Ills.**

HIGHEST GRADE BY SPECIAL TEST
TRUE TEMPER
FARM AND GARDEN HAND-TOOLS
MANUFACTURED BY AMERICAN FORK & HOE CO. CLEVELAND, OHIO. U.S.A.

"True Temper Tools Mean Good Tempered Gardeners"

THE right tool for each kind of work is *real economy* in the garden.

A saving in time and labor.

It wouldn't take much argument to prove that the man who tries to do it all with a spade and hoe works a good deal harder and accomplishes far less than his neighbor with a complete supply of Garden Tools.

And he thereby loses money, too.

Ask the garden maker. He will tell you that the man who can go to his toolhouse and get *just the tool he needs* for each kind of work, will soon save enough time at 18 cents an hour to pay for a good outfit.

Think of the pleasure of doing things right, too.

You not only want the *right kind* but the *best kind of tools*.

That's the True Temper line—"The best tools you have ever bought at the same prices you have always paid."

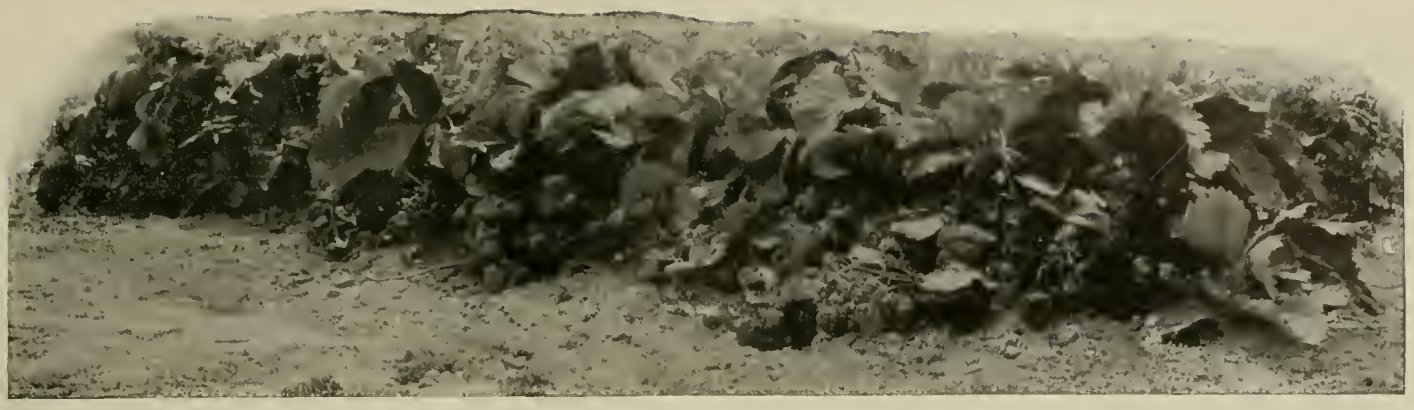
Not a tool is allowed to receive a True Temper label at our factories until it has shown under the most severe tests that it is *true* in quality, construction, "hang" and temper.

A tool for every requirement—Forks, Hoes, Rakes, Hooks, Weeders, Cultivators, Garden Tools, Floral Tools, etc.

Ask Your Dealer for TRUE TEMPER TOOLS

Write today for FREE BOOK, "Tools and Their Uses." Gives valuable pointers on the advantages of special-purpose tools. A postal card will do.

AMERICAN FORK AND HOE CO., 745 Am. Trust Bldg., CLEVELAND, O.



A SINGLE-HEDGE ROW OF STRAWBERRY PLANTS PROPERLY MATED, LOWER FOLIAGE REMOVED TO SHOW BERRIES

Intensive Strawberry Culture---Congenial Mating of Varieties

By Frank E. Beatty

FOR several years I have been writing and talking about the necessity of a complete combination in strawberry growing; that is, the necessity of a thorough knowledge of the different features of the work. The danger with most of us is that we adopt a hobby, and then ride that hobby to failure. Some get a manure hobby, and pile on the manure until their ground is so full of nitrogenous fertilizer that the vegetative parts of the plants are forced so vigorously they cannot get time to form fruit buds but go on building up surplus foliage and runners at the expense of fruit. Then there is the cultivating hobby, the mulching hobby, and a dozen other hobbies; but no one hobby will ever do the business. What we want is to be thorough in every detail of the work from soil preparation clear through the season up to and including the marketing of the fruit.

The feature of the work I will discuss in this article is the proper mating of different varieties to insure perfect pollenation. How well I remember my first acre of strawberries, with their foliage almost hidden with beautiful bloom, that afterward proved to be nothing more than a flower bed, simply because I had failed to comply with one of nature's laws—the mating of varieties. Any variety will bloom excessively whether it has a mate or not, but what good is there in a lot of infertile bloom? Nothing but disappointment, of course. It gives the grower about the same kind of a riled-up feeling that the poultryman has when it comes hatching time and he learns that his incubator is filled with infertile eggs. Like the old hen, we have all passed through that disappointment.

Through a series of tests worked out on my experimental plots at Covington, Indiana, I discovered that even bisexuals were greatly benefited by setting them beside other bisexuals of the same season. This is because the stigmas of the flowers of many bisexuals are not receptive to the pollen given off by the anthers of their own flowers. In making this experiment I took a number of different bisexuals and set them in alternate rows. In other plots I grew the same varieties alone where they had to depend upon the pollen from their own flowers. All plots received the same care and treatment. At fruiting time the difference in yield and perfection of fruit were quite noticeably in favor of the plot containing the several bisexuals where they were mated together. Here there were very few barren blossoms, and the berries seemed to be as near perfection as it is possible to get them. In the plots where the same bisexuals were set alone there were a large number of barren flowers, as well as many deformed and imperfect berries.

For instance, the Jessie always has been known as an excellent bisexual to set with pistillates, and a pistillate will do well when set beside it; but the Jessie will not properly pollenize its own flowers.

Why is it, we are often asked, that strawberries will always yield more and better fruit in trial plots and small gardens than they do in large fields? Simply because in trial plots and small gardens there are always a number of different varieties, and at blooming time there is an exchange of pollen taking place.

Several years ago I wrote an article on mating bisexuals, but it still lies in my desk. I never allowed it to be published because I thought it best to carry out my experiments more completely before making them known to the public, and so the experiments were continued from year to year, always showing noteworthy gains in favor of the mated plots. Professor S. W. Fletcher of the Michigan Agricultural College made some experiments last season along this same line with results in favor of exchanged pollen. Fortunately, the Professor made photographs of berries

BLOSSOM OF THE MALE OR BISEXUAL — BLOSSOM OF THE FEMALE OR PISTILLATE

With this illustration before him it will be easy for even an amateur to determine the difference between the male and female varieties. The male (bisexual) bloom is on the left. It is larger in every way than the female (pistillate) which is on the right. Note the anthers on the male blossom surrounding the center cone. The white spots in the center are the stigmas. When the anthers burst the pollen settles on the end of the stigmas. The germ of this pollen finds its way down into the ovaries of the pistillate, and seed development at once begins, if the stigma is receptive. If only a part of the stigmas are receptive the result will be a deformed berry; if none of the stigmas are receptive a blank bloom is the result. On the other hand, if all the stigmas are receptive to the pollen at the time the anthers burst, the berry will be fully developed and perfectly smooth. The female bloom (on the right) has no anthers and must receive its pollen from some near-by male or bisexual. Hence the necessity of proper mating.

that were produced from mated bisexual flowers, and also photographed berries that were produced from flowers that were self-pollenized. I had the pleasure of examining the negatives shortly after they were made, and a vast difference was noted in favor of the exchanged pollen. The berries were more perfect and larger. And so I advise the practice of this method of mating bisexuals, perfectly confident that it is an important feature of the work, and that success is more certain than where a single bisexual is set alone.

I also have spent much time in experimenting in the mating of pistillates and discovered that it was better to use two bisexuals with each pistillate. By placing the pistillates in rows between two bisexuals, one a little earlier and the other a trifle later than the pistillate, perfect pollenation will be insured, as the early bisexual flowers are almost sure to open with the early flowers of the pistillate, while the later flowers of the pistillate will open with the flowers of the later bisexuals, thus having a large number of anthers bursting and throwing pollen just when the stigmas are most receptive, insuring perfectly developed berries and lots of them. This method of mating not only aids to increase the yield of the pistillate varieties, but the exchange of pollen between bisexuals adds greatly to their yield, as well as encouraging better-formed berries. The results of these experiments were made known to the public in 1905, and I feel highly honored to know that this method has been quite universally accepted by strawberry growers, and I have every reason to believe that this method of mating bisexuals will become one of the leading features of strawberry growing, because it has approved itself wherever followed.

If every other detail of the work be faithfully carried out, but you neglect the proper mating of varieties, your highest ideals will not be attained. Thus you will see the great necessity of following the rules of the complete combination.

Never have I advanced a theory that had not approved itself in practice, and I never intend to so long as there is soil to be used for experimental purposes. The only way to determine facts is by a series of experiments properly conducted.

Questions upon this subject will be in order, and answers will be given either through The Strawberry or by letter.

THE Nebraska State Poultry Association has elected M. M. Johnson, "Old Trusty" Johnson, its president, "in recognition of your (his) help to our association and the poultry industry of Nebraska," as the notification reads. Mr. Johnson is not only a manufacturer of incubators and brooders; he also is an enthusiastic poultryman. Recently he completed some interesting tests as a result of which he makes the announcement that Leghorn eggs will make a good hatch at a lower temperature than it takes to hatch Plymouth Rock or Brahma eggs. He explains the reason why as follows. "It is a fever that makes them broody. The larger varieties are more inclined to broodiness; the fever is higher. With the larger body, the heat is greater in proportion to the feathers. It is a hard matter to find opportunities to take the temperature un-

"New Creations" in BUSH LIMAS!

Nature has surely surpassed herself! In a single season she has outstripped all efforts of man. In fact, such distinct new types have never even been dreamed of before!

To learn just what they really are and how they were discovered, kindly study *pages 10 to 15 of* THE FARM ANNUAL FOR 1907. They are undoubtedly the "*Greatest Novelties of the Age.*"

The Burpee-Improved is an entirely **"New Creation."** The pods are truly enormous in size, borne in great abundance upon bushes two and one-half feet high by two feet across. The beans are both larger and thicker than those of the popular *Burpee's Bush Lima* or any strain of the large White Pole Lima.

Fordhook Bush Lima This is altogether *unique.* Nothing like it has ever been seen before. It is the first and *only* stiffly erect Bush form of the fat "Potato Lima." Both pods and beans are twice the size of *Dreer's, Thorburn's* or *Kumerle Bush Lima* and more than half again as large as the *Challenger Pole Lima.*

$1115 in Cash Prizes

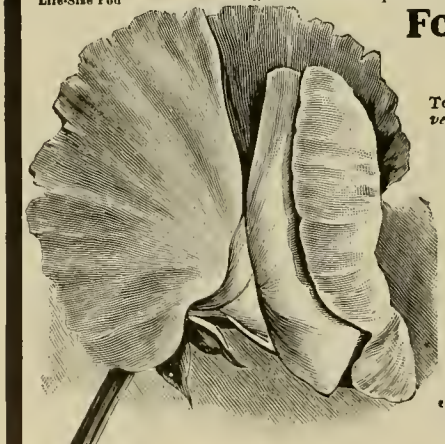
With one prize of **$150,** and several of **$50** each, we will pay a total of **$1115** on these **Two New Bush Limas,** —*see* BURPEE'S FARM ANNUAL.

These Bush Limas are sold only in sealed packets. Each packet contains twelve perfect hand-picked beans. **Per pkt. 25 cents; 5 pkts. for $1.00** postpaid.

Burpee Improved Bush-Lima,—Life-Size Pod

"Five Finest" New Flowers For 25 Cts.

We will mail,—as a special advertising offer,—one regular *fifteen-cent packet* each of the charming VARIEGATED QUEEN TALL NASTURTIUM, the first of Burpee's New "Royal Race" of Variegated-Leaved Tall Nasturtiums, —BURBANK'S NEW CRIMSON-FLOWERING ESCHSCHOLTZIA,—BURPEE'S HERCULES GIANT PANSIES,—the gigantic orchid flowered new pink, FLORENCE SPENCER (see illustration) and the richly colored EVELYN BYATT SWEET PEA. Purchased separately these five packets *would cost seventy-five cents.* **All five packets mailed for 25 cts.; or, five assortments** (in all 25 packets) for **$1.00,**—to separate addresses if requested.



Four 1908 Novelties FREE!

To every one who orders *direct from this advertisement,* we will send **Free,**—if asked for,—*any one* with a 50c. order, *any two* with a dollar order, or *all four* with an order for $2.00. These Novelties, not yet catalogued by us, but on which we offer Cash Prizes for advance trials, are: *New American Dwarf Bush Nasturtium, "Ashes of Roses,"—The New English "Beacon" Sweet Pea,—New American Thick-Leaved Gigantic Mustard,* and a *New Early Hard-Head Butter Lettuce* from Germany.

BURPEE'S 1907 FARM ANNUAL

"Leading American Seed Catalog"

The "*Silent Salesman*" of the world's largest mail-order seed trade. An Elegant New Book of **200 pages** with hundreds of illustrations from photographs, it tells only the plain truth about the very best **Seeds That Grow.**

It describes Grand Novelties in Flowers and Vegetables of unusual importance, which cannot be obtained elsewhere. If interested, write to-day,—*Mention This Paper,*—and the book is yours.

W. ATLEE BURPEE & CO.
Burpee Bldg., Philadelphia, Penna.

REGISTERED WAB TRADE MARK "The seal of quality."

der a setting Leghorn. Only once have I been able to do so on account of her wilder nature and her sensitiveness to having things other than eggs under her; but in the one good test the temperature showed 102 on the eighth day. On the other hand, I have known the thermometer to show as high as 106 on the twelth day under a Plymourh Rock hen. In dozens of tests the thermometer has shown 104 after a week's incubation under the larger varieties. Let me further say that as a general rule, the best results are obtained with incubators with a degree higher temperature in a cold room than in a warm room. This difference is due to the bottom of machine being cooler in a cold room."

Keeping the Birds Away

By S. H. Warren

WHEN we have been deprived of any particular food for a long time how good that food relishes, particularly at first. So I presume this craving is not confined to the human family but includes the birds and other wild creatures, for as soon as the strawberry begins to show its color the birds (robins more particularly with me) peck into them and take a little out of many berries till they have got their fill, not satisfied to eat a whole berry, but sampling many. Now to say that this is aggravating is expressing one's feelings very mildly, particularly when he has taken extra care of his plants for a whole year. Perhaps these are some new seedling of which he is the originator, and he has tried to make them do their best so he can produce from those plants extra-quality berries for exhibition to show people a strawberry a little better than they ever saw before; for an originator is apt to think his production is better than any other. And when after all his year's labor he finds the birds are spoiling all the best of them, his hopes are dashed to the ground. If he hasn't good control over his tongue he may express his disappointment in words not becoming to him.

As I have experienced the above conditions I have tried various devices to keep the birds away. Last year I was well pleased with my experiment with red strips of cloth one inch wide, twelve inches long, tied to a small strong twine two feet apart and fastened to stakes two feet long. It kept the birds away.

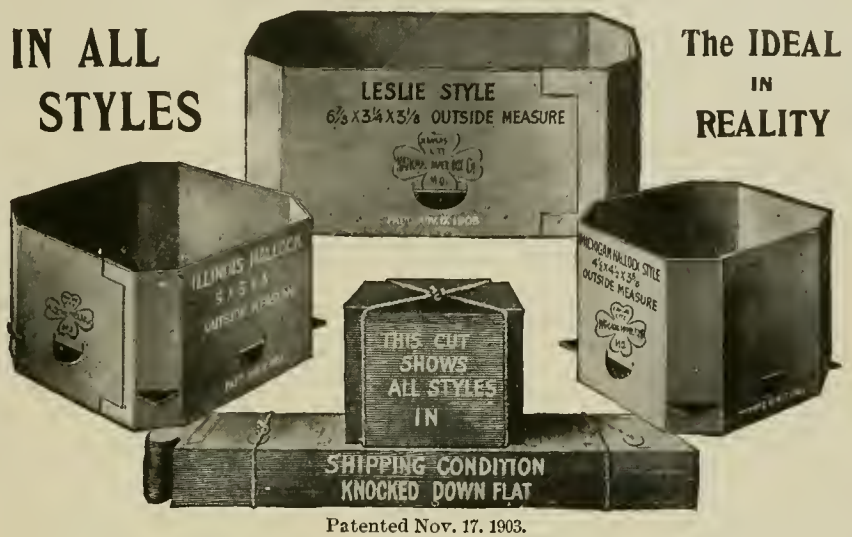
These stakes may be made of pieces of lath or any other thing that comes handy, driven into the ground, and a small nail driven in the top end to wind the twine once around, then drive the nail home. This secures it to the lath or post which may be driven so the red strip of cloth will just clear the tops of the plants. The birds seem to be afraid of the cloth, particularly when the wind keeps them in motion I put one line over each bed.

Perhaps you will think it won't pay to

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES



The IDEAL IN REALITY

Patented Nov. 17. 1903.

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all** who have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crusned. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the **flat** condition.

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

Sales during 1906 in **31 states and some foreign countries,** and **1,400 new names** were added to our already large list of customers. **Communication with 47 States.**

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents.

Patentee will sell his rights or organize a special company. Demands are too large for present arrangements. All who are interested, write above company.

GET THE RIGHT GARDEN TOOLS

It pays to get **Planet Jr** farm and garden tools. No other kind does the work so well or lasts nearly so long, because **Planet Jrs** are designed by a practical farmer and manufacturer; built of better steel, with better workmanship. **Planet Jr** tools increase a man's capacity three to six times.

No. 25 Planet Jr Combined Hill and Drill Seeder and Double-Wheel Hoe, Cultivator and Plow. Simple and easy-running. In one operation, it opens the furrow, sows the seed accurately in drills or in hills 4 to 24 inches apart, covers, rolls, and marks out the next row. The hoes, cultivator teeth and plows are of high-carbon steel to keep keen wearing edge and are designed to hoe and cultivate exactly as needed.

No. 8 Planet Jr Horse Hoe and Cultivator will do more things in more ways than any other horse hoe made. Patented cultivating teeth and reversible hoes work the ground thoroughly, any depth desired, with perfect safety to plants. Expanding frame combines strength and simplicity; handles adjustable up and down, and sidewise. Plows to or from row, a splendid hiller.

Write today for *1907 Catalogue* of these implements, also Wheel Hoes, One- and Two-Horse Riding-Cultivators, Harrows, Orchard- and Beet-Cultivators—45 kinds in all. No matter if you already have some *Planet Jrs*, the new models are interesting.

S. L. Allen & Co.,
Box 1106D, Philadelphia, Pa.

Planet Jr.

do all this to keep the birds away. It may not on cheap, small berries, but I know it will on large berries, for I know it paid me last year on a bed of my new seedling, "Golden Gates." On the same bed the year before (1905) the birds took the lion's share, as there was nothing to keep them away. Last year I tried the cloth and although it was the second year of fruiting this same bed, I exhibited at the Massachusetts Horticultural Exhibition in June 1906, seven quarts picked from this bed which won $23 in prizes.

Birds seem to be good judges of quality, for they eat more berries of the best quality and they seem to prefer to eat those largest berries one has tried to save for exhibition.

It has been said God never gave man exhibition fruit, but gave him the various kinds of fruit in smaller sizes for him to improve or develop. I enjoy exhibiting strawberries, particularly new seedlings of my own originating; also varieties out of the regular season of common kinds such as the "Pan Americans" and "Autumns," both of which I had on exhibition last year from August 1 until November 4—not a few single berries, but quarts of them. No one knows how good his fruit is comparatively until he places it beside other growers' products.

I often think of what the chairman of our fruit committee told me about a spectator looking over an exhibit of pears at one of our horticultural exhibitions. After looking for awhile he informed the chairman of the fruit committee he had pears at home much better than any there on the tables. As he lived but a short distance away the chairman informed him he had time to get them and advised him to do so. He was back in season with his pears, but as he took them out and compared them with those on the tables he soon put them back into the basket in disgust, concluding they had shrunken in size in their short distance transportation. The point I wish to emphasize is that no one knows how good or inferior his fruit is till he displays it with others on the exhibition table.

Weston, Mass.

THIS last thought of Mr. Weston's makes apropos an incident in the life of one of America's greatest men, so great, indeed, that the world is proud to acclaim him one of its best products. We find this incident, as related by George Bancroft Griffith, of East Lempster, N. H., in the current number of Green's Fruit Grower. We quote:

"No one ever had more genuine delight in the possession of land and its accompanying wealth of growth and bloom, than did Ralph Waldo Emerson, the poet and philosopher, in his orchard. Some caviller said to him, 'Your pears cost you more than mine, which I buy;' and the answer was ready: 'Yes, they are costly; but we

Wasted Energy On The Farm

SOMETHING must give way when you grind clothes on a washboard. It won't be the board. Money will replace the clothes wasted that way, but not your precious energy. That cannot be measured in dollars and cents. There is not a single compensating feature for the energy wasted on a washboard or any device that makes washing hard for you.

Rubbing means wear, and wear means waste, waste of fabric—money—and the waste of priceless human energy.

Why not have something (and have it now) that cuts off this waste? The

SYRACUSE "EASY" WASHER

does it, and you can prove it by

30 Days' Free Trial AT OUR EXPENSE

The "EASY" utilizes air to force suds through the cloth. That means sir and suds without friction; that's why it saves energy and fabric. Just remember it, "easy for the operator, harmless to the fabric;" yet forceful, thorough and efficient.

The "EASY" weighs only 28 pounds and is on rollers—easy to carry anywhere when empty and to wheel when loaded.

It's going to last too, because it's made of steel - the toughest kind of steel, and galvanized. Will neither shrink, swell, rust nor lesk. Unlike suds-soaked wooden tubs and washers, there is no retention of germs or filth, but it is clean and sanitary.

Ask for our free booklet of

"MODERN LAUNDRY FORMULAS"

and learn how to solve the washing problem and stop that wear and waste for all future time.

DODGE & ZUILL
5359 So. Clinton St., Syracuse, N. Y.

"A Kalamazoo Direct to You"

ROYAL STEEL RANGE
For All Kinds of fuel.

Kalamazoos are fuel savers,—
They last a lifetime—
Economical in all respects—
They are low in price and high in quality,—
They are easily operated and quickly set up and made ready for business,—
Buy from the actual manufacturer,—
Your money returned if everything is not exactly as represented—

You keep in your own pocket the dealers' and jobbers' profits when you buy a Kalamazoo.

WE PAY THE FREIGHT.

We want to prove to you that you cannot buy a better stove or range than the Kalamazoo, at any price.

OAK STOVE HEATER,
For All Kinds of Fuel.

We want to show you *how* and *why* you save from 20% to 40% in buying direct from our factory at factory prices.

If you think $5, or $10, or $40, worth saving

Send Postal for Catalogue No. 348

Examine our complete line of stoves and ranges for all kinds of fuel. Note the high quality; compare our prices with others, and then decide to buy from actual manufacturers and save all middlemen's profits. Catalog shows 267 styles and sizes for all kinds of fuel. Write now. Sold on 360 Days Approval Test.

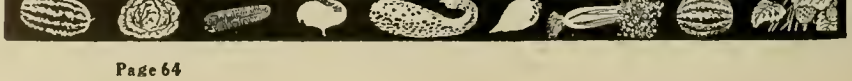
Kalamazoo Stove Co., Manufacturers, Kalamazoo, Mich.

All Kalamazoo Cook Stoves and Ranges are fitted with patent oven thermometer which makes baking and roasting easy. All stoves blacked, polished and ready for immediate use when you receive them.

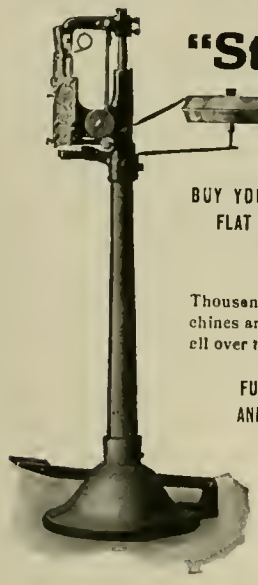
Oven Thermometer

STRAWBERRIES

big, red and lucious are grown from **ALLEN'S** choice vigorous strawberry plants. None better. Good Luck, Chesapeake, Virginia, and Cardinal **new** Glen Mary, Haverland, Dunlap, Marshall, Klondyke, Gandy, Bubach, Climax and all best standard sorts, 90 varieties. Prices Right; **DEWBERRIES,** Austin's, Lucretia, and Premo. I have big stock and they are fine, also Raspberry, Currant and Gooseberry plants, and Grape vines. In **SEEDS** I have the leading varieties for field and garden, my 1907 supply of Peas, Beans, Watermelon, Cantaloupe, and Cucumber seeds **are very choice.** Millions of vegetable plants in season. My 60 page Catalog for 1907 tells about lots of good things for the farm and garden and where to get them. **It's FREE.** Send name and address on postal to **W. F. ALLEN** Dept. 58, **Salisbury, Md.**



MAKE UP YOUR OWN BERRY BOXES



OUR

"Standard"

FOOT-POWER STAPLER

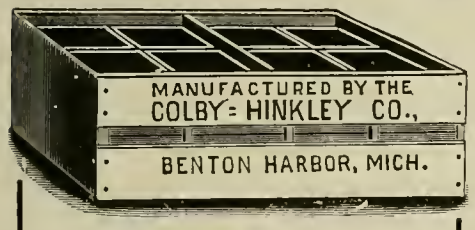
BUY YOUR MATERIAL IN THE FLAT AND MAKE UP YOUR OWN BOXES

Thousands of our stapling machines are being used by growers all over the country.

FULLY GUARANTEED AND LONGEST LIVED

PRICES ON REQUEST

ST. JOSEPH IRON WORKS, 622 WATER ST., ST. JOSEPH, MICH.



BERRY BOXES
BERRY CRATES

In flat or made up. All kinds of

BASKETS

BEST GOODS RIGHT PRICES

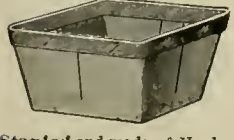
Send postal card for catalogue

Colby-Hinkley Company
BENTON HARBOR, MICHIGAN

Fruit Packages of all Kinds

Before ordering your supplies write for our Descriptive Catalogue and Price List.

BERLIN FRUIT BOX CO.,
Erie Co. Berlin Heights, Ohio.



ANDREW REESH
MANUFACTURER OF BERRY BASKETS AND BERRY CRATES

All sizes of berry baskets from half-pints to the standard quart. All Machine Made, Bottom Stapled and made of Hard wood or Basswood. Send for circular and prices.

ANDREW REESH, New Springfield, Ohio

MAKE MONEY CANNING FRUIT for others. They'll pay high cash prices. Send for free, money-making catalog. Tells al about costs and profits made with our canning outfit. Send now. Begin to reap profits this season.
MODERN CANNER COMPANY,
Dept. M, Bridgeport, Alabama.

all have expensive vices. You play at billiards, I at pear-trees.'"

"A public-spirited citizen, he took pleasure in sending to the 'cattle show exhibition' specimens of fruit from his garden. One day, after this exhibition, a party of gentlemen visited his orchard, and were introduced to him by his neighbor as a committee of the Massachusetts Horticultural Society. He smiled with modest pride at having his orchard thus honored, but the chairman said:

"'Mr. Emerson, the committee have called to see the soil which produces such poor specimens of such fine varieties.'"

"It may have been a damp year, and the pears were rusty, but, as his son writes, 'in all years, the proprietor saw the gold through the rust.'"

The New Day in Strawberry Production

By Ada B. F. Parsons

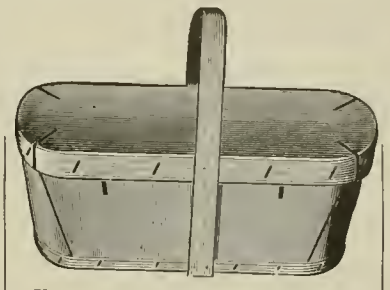
I WAS forty years old yesterday and this is the first time I was ever in a strawberry patch and had the pleasure of eating all I could hold!" This remark came voluntarily from an Iowa farmer who owns one of the best farms in this state (and the best in Iowa is unsurpassable), while feasting last season in our strawberry patch.

This experience is all too common in a country where strawberries will grow as readily as does cabbage. A little intelligence and a little pleasant labor is all that is required. I say pleasant labor advisedly, because one can't help enjoy work that is so full of promise from the day the first plant takes root until the magnificent berries odoriferously permeate the surrounding patch.

Why, then, are strawberries such a rarity? Why have whole families grown up on these rich fertile farms and never had all the strawberries they could eat at one time? Grandfathers and grandmothers, hosts of them, will declare the truth of this. There must be a valid reason, and it is encouraging to believe the remedy is being rapidly discovered. The press, especially such publications as The Strawberry, is making every detail of the work so explicit that "even those who run may read" and can not fail to comprehend.

No one could be a student of The Strawberry and not succeed in the growing of the fruit. It is practical from beginning to end. No difference whether you grow a small patch for home consumption or aspire to commercial importance, you can find no reasonable excuse for not doing one or the other with assurance of success.

If you study this magazine you will not make the common mistake that nine-tenths of the farmers have made in the past and that has caused more fatal results in strawberry culture than any other one



BERRY BOXES
and all kinds of Fruit Packages

OUR SPECIALTIES:

Quart and Pint Berry Boxes, 16 and 24-quart Crates, Picking Stands, Bushel Crates for Vegetables, All Kinds of Grape and Peach Baskets, Bushel Baskets with or without covers, Half-bushel Picking Baskets with strong handles, and many other convenient packages for fruit and vegetable growers; the most durable made

Write for our Free Catalogue. It describes and illustrates everything we make

GEO. B. THAYER & CO., Benton Harbor, Mich.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent

A Free Trial Package is Mailed to Everyone Who Writes

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 613 North St., Adams, N. Y., and he will send you a free trial package; also color card and full information showing how you can save a good many dollars. Write to-day.

San Jose Scale

In your orchard? Cooked sulphur and lime used for spraying will save the trees and kill out the pest. The original Eureka Steam Feed Cooker will cook a barrel of any spraying mixture in 40 minutes. Also a barrel of feed in the same time and save ⅓ the feed. Heats water for stock. Requires but little fuel. Saves labor. Tested to 100 lbs. pressure. On market 25 years. Lasts a lifetime. Price, No. 1, with 9 flues, $20.75. Price, No. 2, with 13 flues, $21.75. We especially recommend this No. 2 cooker. Its size makes it popular everywhere and it is probably just what you want. Special No. 3 size, 160 lbs. pressure and will develop 2 horse-power; price, $30.50. Also kettle cookers and other kinds. Also all kinds of sprayers for spraying all kinds of mixtures.

FREE—Our big 408-page Catalogue showing and pricing almost everything used on the farm and in the home. Write for it. KALAMAZOO SUPPLY HOUSE, 742 Lawrence Sq. Kalamazoo, Mich.

ARE YOU LOOKING FOR A HOME?

No farmer should think of buying land or a home before seeing a copy of The Farm and Real Estate Journal. It has the largest list of farms, City Property, and stock of goods advertised in it of any paper published west of Chicago and reaches 45,000 readers each issue, and is one of the best advertising mediums to reach farmers and home seekers that you can advertise in. Advertising rates 2 cents per word. Send 75 cents and we will mail you The Journal for one year. Or for 10 cents in silver we will send it for two months on trial.

FARM AND REAL ESTATE JOURNAL, TRAER, IOWA

thing, and that is going to your neighbor's patches and procuring the plants for your own bed.

Four years ago we put out our first strawberry patch. I have a personal knowledge of eight other farmers who did likewise, but of the nine we were the only ones who insisted on patronizing the nursery for our plants. The others declared it the height of foolishness, and in a few weeks it did look a little like it; for our neighbors' vines grew and thrived most luxurian ly. When fall came there was no apparent difference. "We were silenced, but not convinced." We mulched our vines; some of the others did. Our next-door neighbor proposed to convict us of our fanatic theories by leaving his uncovered as nature did the wild berries that he had gathered when a boy.

The result was as we expected. To-day not one of these patches is in existence. A few of them bore inferior berries. Some patches never had a single berry, though the luxuriant vines produced a picture that would please an artist.

The yield from our patch the first bearing season was two hundred quarts from originally two hundred plants. We felt well recompensed and encouraged for our venture, but did not anticipate the patch yielding better results another season. But we studied strawberry lore from every available source and put into practice everything that appealed to us as practical, and the result last season was simply stupendous. From this same patch we picked five hundred quarts. We had not anticipated such an outcome and were not prepared with any extra help, so we never got the patch picked clean. The yield was simply beyond an amateur's comprehension.

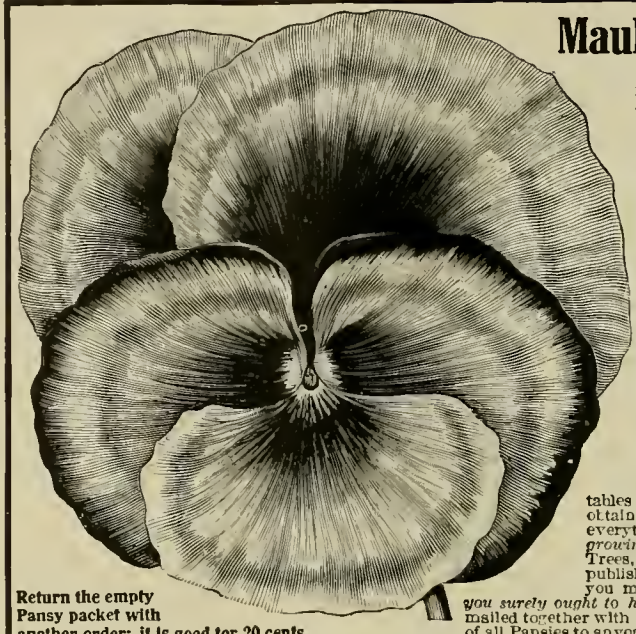
When the crop was finished we mowed it off, but could not burn because of the young apple trees, so went through it all with a four-shovel cultivator, using only one shovel on each side. The result looked anything but flattering; but by fall the patch looked like a new one. The long straight rows with paths between promise another crop. However, it will not be our only dependence, for last year we put out four hundred pedigree plants, putting into practice the knowledge we

NOW You Can Get This Fine Oak Rocker With Orders of Our Goods **FREE**

Isn't it reasonable that you can get more for your money if you buy your Soaps and Pure Foods direct from our factory and do away with the middlemen's profits. We give this fine Oak Rocker absolutely free with $10 worth of our guaranteed Soaps, Tea, Coffee, Baking Powder, Flavorings, Toilet Needs etc. 1000 other premiums with $2 orders and up. Test our goods before you buy. We give 30 days free trial. **No Money in Advance.** Sample of soap free for a postal. Send for large catalog & style book for ladies.

CROFTS & REED Austin Ave., Dept. 657 CHICAGO

Maule's Pansies



A carefully prepared mixture of all *the richest, handsomest* and *largest* Pansies known. Contains all the productions of American and European Specialists that are truly meritorious. Pansy seed is very high priced, and it is next to impossible for the average flower lover to buy all the new sorts. Every variety really desirable is in Maule's Prize Mixture. Look for blooms 2 to 3½ inches across, of perfect texture and in full range of color.

For ten 2-cent stamps I will send one packet of these Best of All Pansies, together with a copy of The Maule Seed Book for 1907. 338,000 copies of this book have already been mailed, at a cost of more than $45,000. It contains 69 Specialties in Flowers and 63 Specialties in Vegetables (many of which cannot be obtained elsewhere) as well as everything else, old or new, *worth growing*, Seeds, Plants, Bulbs, Trees, etc. It is the best I have published in the last 30 years. If you make a garden this spring, *you surely ought to have this Book.* It will be mailed together with a packet of these choicest of all Pansies to anyone sending me 20 cents.

Return the empty Pansy packet with another order; it is good for 20 cents.

WM. HENRY MAULE, 1753 Filbert St., Philadelphia, Pa.

EVERYTHING for the GARDEN

is the title of **Our New Catalogue for 1907**---the most beautiful and instructive horticultural publication of the day---**188 pages ---700 engravings---6 superb colored plates---6 duotone plates of vegetables and flowers.**

To give this catalogue the largest possible distribution, we make the following liberal offer:

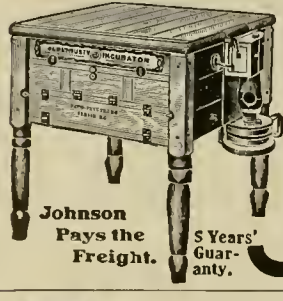
Every Empty Envelope
Counts as Cash

To every one who will state where this advertisement was seen and who encloses **Ten Cents** (in stamps), we will mail the catalogue, and also send **free of charge**, our famous **50-Cent "Henderson" Collection** of seeds containing one packet each of *Giant Mixed Sweet Peas; Giant Fancy Pansies, mixed; Giant Victoria Asters, mixed; Henderson's Big Boston Lettuce; Early Ruby Tomatoes and Henderson's Half Long Blood Beet;* **in a coupon envelope**, which, when emptied and returned, will be **accepted as a 25-cent cash payment** on any order amounting to $1.00 and upward.

PETER HENDERSON & CO 35 & 37 CORTLANDT ST. NEW YORK CITY.

OLD TRUSTY
INCUBATORS AND BROODERS

The Easiest to Operate Because It Runs Itself.



Made of the best materials—and so the most durable. Patented copper-pipe heating system that gives the **only** perfectly even radiation of heat to all parts of egg chamber. Regulator so perfect that you might run it without a thermometer. Sold on

40, 60 AND 90 DAYS' TRIAL
and Five Years' Guaranty.

Highest quality, fairest prices, fairest terms. No matter where you live, Johnson, the Incubator Man, can save you money in prices and in results, and save you chicken troubles.

SEND FOR JOHNSON'S BIG BOOK

Chock-full of common-sense chicken talk and straight from the shoulder money-making suggestions. 300 illustrations. **It is Free.** Write today **sure**, and get his special offer.

M. M. JOHNSON CO., CLAY CENTER, NEB.

Johnson Pays the Freight. **5 Years' Guaranty.**

The "Kant-Klog" Sprayers

Something New. Gets twice the results with same labor and fluid. Flat or round, fine or coarse sprays from same nozzle. Ten styles. For trees, vines, vegetables, whitewashing, etc. Agents wanted. Booklets free.

A slight pressure of the thumb starts the spray.

Rochester Spray Pump Co.,
12 East Ave., Rochester, N. Y.

O.K. Chase
St. Louis, Mo.

I Am the Paint Man

2 Full Gallons Free to Try—6 Months Time to Pay

I Guarantee Freight Charges.

I AM the paint man. I have a *new* way of manufacturing and selling paints. It's unique—*it's better*. It revolutionized the paint business of this country last year.

Before my plan was invented paint was sold in two ways — either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The chemical action in ready-mixed paint, when standing in oil, eats the life out of the oil. The *oil* is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in another can, I ship the pure, old process Linseed Oil—the kind you used to buy years ago. Any child can stir them together.

I sell my paint direct from my factory to user you pay no dealer or middleman profits.

My $100.00 Cash Guarantee

I guarantee, under $100 Cash Forfeit, that the paint I am offering you does not contain water, benzine, whiting, or barytes—and that my Oilo is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever.

I guarantee the freight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use *two full gallons*—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, *you can return* the remainder of your order and the two gallons will not cost you one *penny*.

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on *six months' time*, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

Back of my paint stands my Eight-Year officially signed, iron-clad Guarantee.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo. I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8-year guarantee.

O. L. CHASE, *The Paint Man.*
Dept. 50 St. Louis, Mo.

NOTE—My 8 Year Guarantee Backed by $50,000 Bond.

have been garnering for the past four years and believing that we are better qualified in selecting varieties adapted to our condition than when we began our venture. We know there will not be so much "guess-work" about it, and we are confident that our every perplexity will be anticipated and made clear in the coming issues of The Strawberry, while our file of 1906 issues make a reference book that will meet every need.

Somebody has offered two dollars for the past year's magazines. Why, a five-dollar bill would not induce us to part with ours, and those bills look as big to us as to anyone. But those copies of The Strawberry are simply of inestimable value to the strawberry grower.

Fairfield, Ia.

⚜ ⚜

IN sending in his renewal and a subscription for a friend, C. G. Richards of Glen Falls, W. Va., takes occasion to compose his sentiments in rhyme. He says:

The strawberry bloom, so white and pure,
Ne'er failed my childish eyes to lure;
But the nectar of the ripened fruit
My fancy's taste does better suit.

And adds: "Yet The Strawberry in twelve months has taught me more than a lifetime of looking and eating."

⚜ ⚜

NO MATTER where I have lived, nor how cramped the quarters, if I had any ground at all for garden purposes, a part of it was sure to be consecrated to the growing of this "food of the gods" (strawberries), being careful to plant early and late varieties, so as to insure a long fruitage, writes "E. K." in Indiana Farmer. I remember one experience in particular. On a large town lot I had three plots, aggregating probably 80 or 90 feet square, planted to berries, and in one

FERGUSSON BROTHERS

HIGHEST GRADE COPPER SULPHATE

(BLUE VITRIOL)

NO. D 109 CHESTNUT STREET, PHILADELPHIA, PA.

COMMERCIAL COPPER SULPHATE OR BLUE VITRIOL

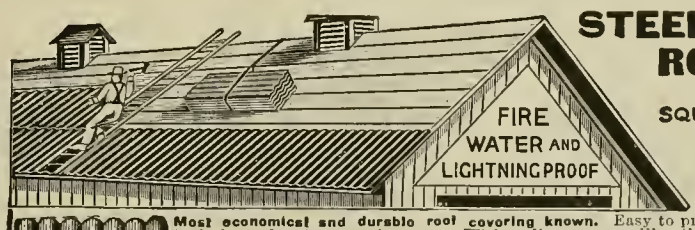
One of the most difficult and expensive problems in the manufacture of Copper Sulphate is to eliminate the Sulphate of Iron. To be sure you get over 7½ cents per lb. for a ½ cent per lb. article if you let it stay in the solution before the crystallization, but it is not fair to the consumer. Usually a goodly percentage of Iron Sulphate may be found in ordinary commercial Copper Sulphate. Quite a percentage of crystal Iron Sulphate may be mixed with Copper Sulphate without its being detected. On this subject we have a letter, from a professor in one of the large Agricultural Colleges, who has evidently gone into this subject carefully. He advises us that a double Sulphate of Copper and Iron is practically useless for spraying and that he found quantities of Copper Sulphate on the market that contained a large percentage of Iron Sulphate, which article was almost worthless.

With these important facts in view, we offer Fergusson Brothers' Blue Vitriol, guaranteed 99 per cent pure Copper Sulphate, containing the least percentage of Iron that is practicable, guaranteed absolutely unadulterated, perfectly clean sharp crystals, new hard wood barrels, full weight 450 lbs. net each.

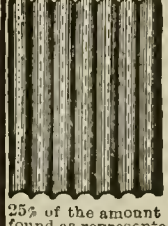
We do not pretend to compete for your orders solely on a price basis, but by selling you better goods than our competitors can or do deliver. Growing trees and plants are poor things to run any risk with, and our advice is to let the other fellow do the experimenting.

Copper is high and likely to be higher. In fact, owing to the enormous demand for Copper Sulphate that is already indicated for this Spring, many are predicting a positive shortage for Blue Vitriol. At any rate, we see strong indications of higher prices. You had better order now and be on the safe side. Comparing last year's price for Metallic Copper and the then prevailing price of Blue Vitriol with today's prices for the two articles, you find Blue Vitriol should in reality be much higher. Copper is now scarce at 25 cents per lb. on spot and higher if you want to buy for delivery later.

When buying BLUE VITRIOL insist on your dealer delivering you FERGUSSON BROTHERS' goods, or drop us a postal, stating quantity desired, and we will promptly quote you a price including delivery to your nearest shipping point. ***FERGUSSON BROTHERS***



STEEL ROOFING
PER 100 SQUARE FEET
$1.50



Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding. Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new. **$1.50** is our price for our No. 15 grade of Flat Semi-Hardened steel roofing and siding, each sheet 24 ins. wide and 24 ins. long. Our price on the corrugated, like illustration, sheets 22 ins. wide x 24 ins. long, **$1.75.** At 25c per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, **per square, $2.00.** Fine Steel Beaded Ceiling, **per square, $2.00.** Can also furnish standing seam or "V" crimped Roofing. **WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO** except Okla., Tex. and Ind. Ter. Quotations to other points on application

Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this ad C. O. D., with privilege of examination if you will send us 25% of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit. **Ask for Catalog No. WE 733.** Lowest prices on Roofing, Eave Trough, Wire, Pipe, Fencing, Plumbings, Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales. **CHICAGO HOUSE WRECKING CO., 35TH AND IRON STS., CHICAGO**

800,000 Asparagus Roots One and two year old must be sold as they are on rented land. All thrifty and healthy. Prices low. Send for catalog of Trees, Plants, Vines, California Privet, Garden Tools, Spraying Mixtures, Pumps, etc. **ARTHUR J. COLLINS, Box 415, Moorestown, N.J.**

year that I kept account, there were several bushels gathered from this small area; one bushel at a single picking, after a day or two's lapse, being gathered by relatives from the country, who rather shamefacedly reversed the usual order of things by coming to town to gather their harvest—and a harvest that only neglect and lack of forethought and a little labor prevented their gathering from their own farm. But for home use alone, so large a bed is not necessary; and furthermore is more than one would want to care for as an incidental to other work. A bed ten or fifteen feet square, well spaded before planting, and carefully tended, would insure the ordinary family an ample supply of berries for table use.

Trials of a Bohemian Strawberry Grower

FROM a subscriber to The Strawberry who resides at Networitz, Bohemia, comes a letter dated Janurry 8 that we are sure will be read with interest by growers in our own country. The writer is R. Strimpl, and his market place is Prague, the capital city of the kingdom of Bohemia. In his letter Mr. Strimpl says:

"There is not yet a great demand for strawberries here. I was the first one here to grow them extensively. My first ones I sent as presents, but they were not eaten, but were sent from one to another until they spoiled. Everybody appeared to be afraid of them. I showed a few boxes to a fruit merchant, but he refused to consider them. Some more I had with me I unloaded, and when he saw them he made a friendly expression and desired to buy them; but I declined to sell them immediately. In a few days, as there were more strawberries than I expected, I took them to the merchant and was gladly welcomed—and got my price. [Good for our friend across the sea! Some of us on this side need to stiffen the stamina occasionally when it comes to the matter of price for our berries.—Editor Strawberry.]

"The season of 1906 was not a happy one. My fields were overwhelmed with a terrible hailstorm in the best part of the season, so I lost more than 60 per cent of the harvest. After the storm there was not left a single leaf. In the newly set fields were left only the roots; some rows were washed out, and some overflowed.

"It is wondrful how tough and long-lived a good strawberry plant is! It took a great deal more work, but I now have almost a good stand. In one field we could not trace the rows with a horse, so we must work on knees to help them out of the mud. These plants were wetted with sweat and tears, but I conquered.

"I await each month with interest the coming of The Strawberry."

Mr. Strimpl is doing a great pioneer work for his countrymen, and his well-kept farm and fine strawberry and raspberry fields, as shown in photographs prove him to be master of his calling. What Mr. Strimpl observes concerning the enduring qualities of the strawberry plant is the experience of all old-time strawberry growers. The persistency with which it will live and thrive under discouraging conditions is one of the points which makes it a universal favorite. Mr. Strimpl's insistence on standing by his project is an example worthy of imitation by all of us.

BOAST as we may of agricultural advance in the United States, we yet have much to learn from Asia concerning the capacity of the soil to produce and the possibilities of intensive cultural methods. For instance, the average Japanese farmer cares for a little less than one acre, while less than 15 per cent of the rural population cultivate more than three acres. The farming area of Japan is only about 15,000,000 acres, or less than one-third of that of Kansas, yet 40,000,000 people manage to feed and clothe themselves from their landed possessions. This seems incredible, considering that their agricultural methods are for the most part primitive, and that few draft animals and almost no modern implements are used. The Japanese are "scientific" farmers. They keep their soil well fertilized, economize every inch of space, and work incessantly. They are wonderful people in adapting means to ends, and the more we learn about them the more marvelous do their achievements appear.

MR. STRIMPL'S STRAWBERRY FIELD AT NETWORITZ, BOHEMIA

WE take more than usual interest in calling attention to the advertisement of the American Fence which appears in this issue, because we have just put up something more than a hundred rods of the very fence advertised on The Strawberry farm, and it looks just like the picture in the advertisement—taut, firm, straight and handsome. Don't delay sending for the fine catalogue issued by the company making this fence, the American Steel & Wire Co., Chicago. They will send you free a valuable combination key-ring, screw-driver and bottle opener. And don't fail to say you saw it in The Strawberry.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Egga a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of Jannary, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Egga a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

PLYMOUTH ROCK SQUABS

are largest and most prolific. We were **first**; our birds and methods revolutionized the industry and are widely copied. First send for our **FREE BOOK,**

"HOW TO MAKE MONEY WITH SQUABS"

PLYMOUTH ROCK SQUAB CO.,
402 Howard Street, Melrose, Mass.

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter V—In Which is Shown the Importance of the Price Received for Strawberries

THE experience I had acquired in my several years of berry growing, made it possible for me to carry on the work more intelligently than theretofore. Nothing but carefully selected and well developed plants were used, and they were properly mated. These essential features of the work, coupled with thorough cultural methods, gave me the finest field of strawberry plants I had ever seen. There were one or two light frosts during blooming time, which lowered the temperature of my enthusiasm for a few days, but when the berries began to form, I could plainly see that the fruit promised to be smoother and more of it to every acre than it had been my lot previously to secure.

A big supply of crates were made up, and these were filled with full quart boxes, not made with tacks either. No sir! One mistake of a kind is enough for me. I had purchased a fine wire-stapling machine, and every box was snugly put together with wire staples. This brings to my memory the conversation which took place between my wife and myself, one day in December, when the machine arrived.

"What on earth is that?" asked my wife.

"That, my dear girl, is a machine for stapling berry boxes."

"What did it cost?" was the next question.

"Thirty-two dollars and express charges."

"Where are you going to get the money to pay for all these machines and tools you are buying?" was question number three, which was answered by pointing to the field of strawberry plants that were well covered with straw.

"Yes, Frank; but if something happens the crop—then what?"

I was so enthusiastic in the work, that such a thing as crop-failure or failure of any kind had never entered my mind. "Really, I do not believe anything can happen to those plants; they looked so thrifty when I coverd them last fall, that I cannot help feeling confident that everything is going to be all right, and besides this machine will be paid for at once. In fact, we owe but very little, except on the land. The box machine is something we have needed badly. As you know, we have made arrangements to ship most of our next season's crop, and I do not want another experience at marketing time like last year, when the bottoms of the boxes dropped down while in transit and ruined those fine strawberries. If that groceryman in Indianapolis or any other man finds fault with my berries, he will have to find fault with something else besides crushed fruit, because when this machine puts a box together it is going to stay. Just think! our loss last year because of boxes being made with tacks, would have more than paid for two such machines, besides the worry and disappointment it would have saved us."

By this time my wife was convinced that I had used good judgment in getting the machine, and she was just as busy as I, trying to get the wire threaded into the machine, so as to see it work. The first few boxes it missed a few staples, but after adjusting it the staples would clinch every time

"I will fold the boxes while you work the machine," said my wife.

"All right, but you must fold the material quickly, for I am going to work the pedal fast." Click, click, click, went the machine, and the boxes were turned out in factory style. "That beats anything I have ever seen," said my wife. "Now you fold and let me make awhile."

The change was made, and this pleased her more than ever. "Do you like the machine?" I asked. "Yes, I would rather wear a calico dress all my life than let that machine go back. I did not question you because I wanted to meddle in your business, but because I am so interested in our little industry, and am willing to make most any sacrifice, and share in your ups and downs in order to make a success of this business." And God bless her! she has proved true to her promise up to this very day.

The experience I had the year before in marketing my berries, prompted me to make arrangements with the best dealers in each of the near-by towns. This was done early in the winter, and I had no trouble in getting the best grocer in each town to take them, because I assured them that my berries would be honestly packed and attractively arranged in the boxes. These dealers agreed to take the exclusive sale of my berries. A selling price was to be determined by each day's market for the same grade of berries. The understanding was for them to deduct 10 per cent commission and the express charges, and remit the balance to me. I felt pretty much encouraged over my success in getting such good dealers, and before the berries began to ripen I made sure that nothing was left undone that should be done before the rush began. I enumerated everything, so if anything had been omitted it could be attended to before it was too late. Now let's see, there are the crates, boxes and picking stands, all made up; pickers, packers and field foreman engaged; punch in hand; pickers' tickets and stationery printed; dray to haul berries to the station; enough good dealers to handle all the berries, and arrangements made at the bank to take care of my expenses until the returns began to come in. "Can you think of anything else that should be prepared before the berries ripen?" She could not, and I felt that I was ready for the rush to begin.

The six or seven acres of plants that were set in the spring were making great strides, as well as the fruiting bed. The experimental plots which were set the spring before were showing up finely. The results of experimenting in mating varieties appear in the article on "Proper Mating" in this issue.

It was only a few days until the big show opened. Each dealer was notified to get ready for the berries, and when the rush did come it came in earnest. Fifty to sixty pickers were kept on the hustle from morning till night. The first big picking was divided among the different dealers, and the shipments were increased each day, until I thought the dealers had as many berries as they could handle. But my berries must have taken these towns by storm, or I had misjudged the capacity of these dealers. Letters, telephone messages and telegrams came pouring in. Some would say, "Send more berries;" others would request me to double their shipments. Not one dealer was timid in expressing his admiration of my berries, and my way of packing. They soon began to call them "Beatty's Celebrated Strawberries." "This is an appropriate name to use as a trademark," I said to my better-half, "and from now on all fancy berries from this farm shall be labeled 'Beatty's Celebrated,'" and the fact that my berries had won this fair name on their merits pleased me all the more.

We increased the shipments, but the calls for more berries continued. What was to be done? We had reached the limit. The vines were cleaned of all ripe berries every day. I hurried to one of my neighbors, and asked him if he would not pick and pack his berries like mine, and let me have them. "Why, yes," he said, "that just suits me. I am having an awful time to get rid of mine."

Well, that was surely luck for both of us. "Go pick them at once, and I will include yours in my shipment of berries tonight." His berries were nice, and all they needed was a little fixing up to make them shine with mine.

The way business was going, I decided my mistake this year was in not having more acres to pick from, but when the returns began to come in, I soon discovered that the mistake was somewhere else. These dealers were perfectly honest, but they sold my berries in competition with other berries that were not so nice nor so well packed. I decided then that it was poor business policy to allow someone else to put the price on my products. A few crates were sold for $2 each; the balance

for $1.75 and $1.50. As each crate contained twenty-four full quarts, it is easy to figure that there was not much left for profit after 10 per cent and express charges were deducted.

While this was a great disappointment to me, it was not so bad as the year before. The fact that every dealer expressed his desire to handle my berries the next season, and wanted to engage them a year in advance, convinced me that "Beatty's Celebrated Berries" had made a record, and by making different arrangements for the selling of my fruit, I would soon have my berry business on a fine paying basis.

(Continued Next Month.)

Notes About Spraying

BEFORE a gathering of Ohio farmers recently S. W. Huntley of Vinton, in that state, gave an address on spraying that contained many important suggestions on that subject. In the course of his remarks he observed that scientists already have discovered nearly 200 species of fungi, and said also

A DEMING BARREL SPRAYER

it was manifest that orchard pests were increasing with the gradual decrease of forest foliage. He went on to say that if we would have success with next year's crop of fruit we must keep this year's foliage in a healthy condition. The leaves are the lungs of the plant and they are necessary to grow healthy wood and this in turn precedes a crop of fruit. He said by spraying you more than double the crop of marketable apples; you intensify the coloring; you add to the keeping qualities by making more solid and sound fruit; you also increase the size of fruit, which is quite a consideration when selling time comes. Sprayed apples could be eaten in the dark, as 90 per cent of them would be free from codling moth. Before spraying he advised his hearers to get ready by scraping the trunks of trees with a dull hoe; removing all surplus branches and washing trunk with whitewash. Next secure a strong, double-acting, force pump. If one thinks the outlay too great, several neighbors should combine and buy an outfit. For scab he

A SHAVING soap should soften the beard and soothe the face. Common soap won't do this, but it will irritate and smart, and quite likely poison the face. If this means anything to you insist on getting

Williams' Shaving Soap

"The only kind that won't smart or dry on the face."

Send 2c. stamp for a TRIAL CAKE of Williams' Shaving Soap, or 4c. for a Williams' Shaving Stick, trial size, enough for 50 shaves. Address

THE J. B. WILLIAMS COMPANY, Department A, GLASTONBURY, CONN.

Guaranteed Farm and Garden Tools

You can depend upon every Iron Age tool not only to do your farm and garden work better, easier and quicker than any other method, but to wear better and last longer than all similar implements.

The **No. 6 Iron Age** combines three distinct, practical tools, and prepares the ground, sows the seed and cultivates the growing crops.

The **No. 60 Iron Age** thoroughly cultivates all crops on hillsides and level ground, and all kinds of soil. Easy to guide and thoroughly adjustibility.

Write for the **new Iron Age book—FREE**—and get posted on the full line of labor-saving Iron Age tools—Seeders, Wheel Hoes, Horse Hoes, Walking and Riding Cultivators, Fertilizer Distributers, Potato Planters, Sprayers, Cultivators, Diggers, etc.

No. 60 Iron Age Pivot Wheel Cultivator

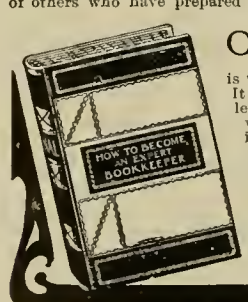
No. 6 Iron Age Combined Double and Single Wheel Hoe, Hill and Drill Seeder

Bateman Mfg. Co., Box 543 Grenloch, N. J.

IRON AGE IMPLEMENTS

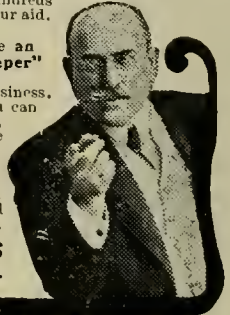
THIS BOOK IS FREE

Would you like to succeed in business; to obtain a good paying position; to secure an increase in salary? Would you possess the capacity that directs and controls large business enterprises? If so, you should follow the example of hundreds of others who have prepared themselves for increase in salary through our aid.

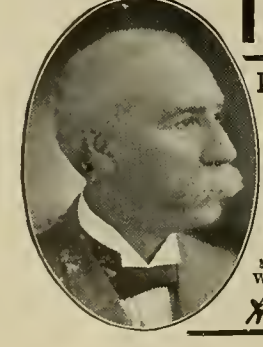


Our Free Book "How to Become an Expert Bookkeeper"

is the title of a treatise on Bookkeeping and Business. It tells of a system of accounts by which you can learn bookkeeping quickly at your own home, without loss of time or money. We guarantee it. It is a book of intense interest to those who aspire to success. To advertise our School and to help the ambitions, we are giving this book away without any condition whatever. It is absolutely free. Send your name and address and receive the book without cost.



COMMERCIAL CORRESPONDENCE SCHOOLS
85V Commercial Building, Rochester, N. Y.



I Am The Burdett Organ Man

I'LL make *you* the best organ offer ever made by *anyone*. I make the famous *Burdett* Organ. For 50 years the Burdett has been the *best* organ. *Everyone* knows it's the *best organ in the world* today. I'll send you one *Absolutely Free on Trial*. No deposit. No obligations on your part. If you want to keep it, I'll sell it to you at my *lowest factory price*. I'll let you pay for it on *your own terms*. I'll give you *Free Music Lessons*. I guarantee the Burdett Organ *forever*. If it develops defects at *any* time, I'll return your money or make good the defects. And I'll give you *free insurance* with the Burdett Organ. If the head of your family dies and you can't keep up the payments, the organ *immediately becomes your property*—your payments stop—you owe me *nothing*. That's my new plan in a nutshell. Don't you want to know more about it? Don't you want a **free** copy of my **handsome book, "The Story of the Burdett Organ?"**

Well, then, just send your name and address on a postal to

President Hobart M. Cable Co. (Capital $350,000)
Hobart M. Cable **565 Steinway Hall, Chicago**

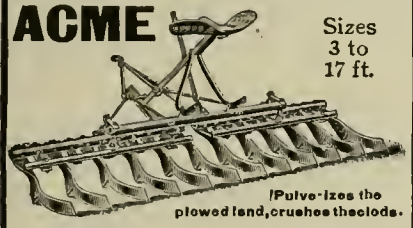
Try this
Harrow FREE

RETURN AT OUR EXPENSE IF IT DOESN'T PLEASE YOU.

Here is a harrow that looks very different from the old spike or spring toothed harrow.

It *is* different. Every point of difference is a point of big improvement. It is as much better than the old fashioned harrow as a modern plow is better than the Indians' crooked stick.

ACME Sizes 3 to 17 ft.



Pulverizes the plowed land, crushes the clods.

The coulters or teeth of the "Acme" work as a gang plow. They turn over the pulverized ground and give the crop all the soil's benefit. Farmers will tell you that bigger crops grow after an Acme harrowing.

FREE BOOK for your Farm Library.

Write us today and we'll send you free, a valuable booklet, "A Perfect Seed Bed." It means money to you.

DUANE H. NASH,
Box 39. Millington, N. J.

$50 FOR AN EAR OF CORN

We will pay the above amount to the grower for the largest ear of our Wonderful New Corn
"NICHOL'S YELLOW QUEEN"
Grown this Season. Holder of the World's Record, 383 Bus. per acre.

FREE SEED

A Package of Seed of the World's Largest Tomato, (Weight, 7¾lbs.) Also our Big 1907 Garden Annual, describing and illustrating everything for the Field, Garden and Lawn, is mailed FREE to any address for the asking. Write today. A postal will do.

ST. LOUIS SEED COMPANY
648-650 N. Fourth St., ST. LOUIS, MO.

Make More MONEY on Fruit

Everyone who grows fruit should be interested in getting MORE PROFIT from his FRUIT crops

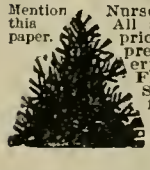
THE FRUIT-GROWER
ST. JOSEPH, MO.

is a handsomely illustrated, 76-p. monthly. Treats of fruit growing, gardening, poultry raising, on a large or small scale. Every farmer needs it. $1 a year, but will be sent 3 months FREE on trial if you will notify us to stop or subscribe after trial.

The Fruit-Grower, Box 103, St. Joseph, Mo.

EVERGREENS

Mention this paper.



Nursery grown, hardy everywhere. All sizes for all purposes, lowest prices. 50 bargain lots, first class, prepaid $1 to $10 per 100. Also Nursery grown Forest Trees.
FREE:—One beautiful Black Hill Spruce to every customer. Send for free Cat. and Bargain Sheet.
D. Hill, Evergreen Specialist
Box 109. Dundee, Ill.

Automatic BUCKEYE Incubator

All Metal, Fire Proof, Continuous Hatcher.

NEEDS NO THERMOMETER.

Adjusted by us and ready to run when you get it. Guaranteed for five years. Good credit at home is good with us. Get the best and save money. CATALOGUE FREE.

BUCKEYE INCUBATOR CO. Box 49, Springfield, O.

uses the 4-4-50 mixture. "Be careful and drive round and round the tree, thereby making sure that all parts of a tree are covered. A bushel of good apples goes quite a ways in paying for the spraying material." About the time the blossoms fall, he advised using 4 pounds lime, 4 pounds copper sulphate and 4 ounces Paris green to 50 gallons of water. When spraying do not guess at anything, but weigh everything and be accurate. Some orchard owners prefer to hire spraying done, paying $3 per day—the owner furnishing all material.

W. H. UNDERWOOD, the well-known apple grower of Hutchinson, Kan., in a report to the Western Fruit-Grower thus sums up the advantages of spraying "as we see them in this district." The comparisons made certainly are interesting and suggestive: "The orchards sprayed thoroughly and not affected by the hail, had from the best crop to twice as good a crop as they ever produced before, and I mean by

WALLACE SPRAYER IN STRAWBERRY FIELD

thorough spraying, five or six times over and doing it at the proper time and getting done within five or six days of time it was started. The orchards that were sprayed only once or twice and where they were sprayed too late, had what we should judge would be a half crop. Unsprayed orchards in this district produced no No. 1 packing fruit this year. And this was in orchards that had produced the big end of the crop in this district in previous years. Seventeen other growers who bought thirty-two spraying machines all had No. 1 and fancy fruit which could be stored, and all but two of them I think stored their fruit. The other sixty odd growers in this district who did not spray, sold their fruit as windfalls to the wagon trade to take out west. Out of over sixty of these growers, only seven have had any fruit fit to store, and of those seven only two made a grade of No. 1 apples."

PENNSYLVANIA appropriates $30,000 annually for the purpose of protecting the fruit crop of that state from the ravages of insect pests and fungous diseases. Illinois appropriates $12,000 a year, and may increase the amount to $25,000 at the present session of the leg-

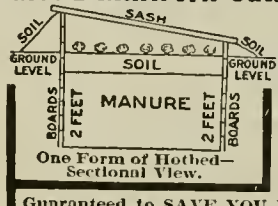
Hot-Bed SASH $1.60
DEALER'S PRICE $3.50
Including Glass Without Glass **92c**

NOW is the time to buy sash for your hotbeds or chicken houses and brooders. Hotbeds are easy to make like illustration below. Cost little. Pay big. You get our sash direct—

ALL READY TO USE
SAFE Delivery
Guaranteed Anywhere

from the Largest Mill in America. No come apart to it. Best workmanship. Glass laps over to prevent leaks. Bars screwed on bottom rail. Sash glazed with putty and points. 3x6 feet. Higher Grade in all ways than dealers sell for double our prices.

Grand Millwork Catalog FREE



One Form of Hotbed—Sectional View.

Don't fail to write us a postal for our Grand Free Millwork Catalog. Illustrates Hot-Bed Sash, and 5,000 Bargains in all Woodwork, Doors, Windows, Screens, etc., and Flint-Coated Rubber Roofing—ALL

Guaranteed to SAVE YOU HALF Dealer's Prices, freight included. Write today.

GORDON, VAN TINE & CO.
113 Case Street, Davenport, Iowa

STRAWBERRIES

big, red and luscious are grown from **ALLEN'S** choice vigorous strawberry plants. None better. Good Luck, Chesapeake, Virginia and Cardinal, now Glen Mary, Haverland, Dunlap, Marshall, Klondyke, Gandy, Bubach, Climax, and all best standard sorts, 90 varieties. Prices right. **DEWBERRIES,** Austine, Lucretia, and Premo. I have big stock and they are fine. Also Raspberry, Currant and Gooseberry plants, and Grape vines. In **SEEDS** I have the leading varieties for field and garden. My 1907 supply of Peas, Beans, Watermelon, Cantaloupe, and Cucumber seeds **is very choice.** Millions of vegetable plants in season. My 60 page Catalogue for 1907 tells about lots of good things for the farm and garden and where to get them. **IT'S FREE.** Send name and address on postal to-day to

W. F. ALLEN,
Dept. 58, Salisbury, Maryland

APPLE, PLUM, OR PEACH TREES
50 FOR $2.50

For particulars send for Green's Free Fruit Guide and Catalog, and we will mail you also a sample copy of Green's Big Fruit Magazine.

GREEN'S NURSERY CO., Rochester, N. Y.
Mention this paper and get 100 page Fruit Book Free.

240-EGG Incubator $11.75

120 Egg Size, $9.00
60 Egg Size, $7.50

Brooders equally low. Not cheap machines but the famous **"Ideal"**—guaranteed to be the surest and easiest ever made. Why not save from $5 to $10? Get our big 128 page, illustrated poultry book FREE.

J.W. Miller Co., Box 372, Freeport, Ill.

EATON'S FAMOUS POULTRY FOODS

CHICK SCRATCH MASH
LIFE SAVER CLIMAX PERFECTION

Ask your dealer, or write R. D. Eaton Grain & Feed Co., Norwich, N. Y. Mention this paper.

islature. Ohio's annual appropriation for this purpose amounts to $10,000. Every state in the Union should be doing work along this line. The future of the fruit and horticultural interests in general will depend largely upon the way in which this work is performed.

ONE authority gives the following list of plants affected by the San Jose scale. It is a long one and indicates how general should be the interest taken in this pest by individuals, if for no other reason than the conservation of their own interests. Here is the list: Apple, crab apple, pear, peach, plum, quince, Japan quince, apricot, almond, thorn apple, persimmon, English walnut, black walnut, Lombardy poplar, Carolina poplar, chestnut, sumac, catalpa, willows (several species), osage orange, basswood, ash, dogwood, elm, lemon, lime, juneberry, alder, laurel, hawthorne, snowball, hop tree, silver maple, rose, strawberry, raspberry, blackberry, gooseberry, currant, huckleberry, pecan, cutleaved birch, milkweed, spruce, cedar, grape.

TOBACCO dust is very useful about the fruit farm. Use it whenever there are insects about the roots of trees. Use it to fumigate in greenhouses or conservatories. Make a solution of it to wash infested trees. It is death to the various forms of aphis.

EVERY farm in North Dakota (and elswhere) should have a small fruit garden, and especially a strawberry bed," writes W. Truckenmiller in Farm, Stock and Home, and continues: "Strawberries are easy to grow, sure to bear plenty of fruit if well cared for, and when well ripened and fresh are the most delicious of all fruits. Any land will grow strawberries, from almost pure sand to the stiffest clay; but of course the better the land, the better and more thrifty the berries. Now is the time to plan for the strawberry bed. As to the size of the bed, plant plenty; if there are children in the family, one thousand plants are none too many." Mr. Truckenmiller lives at Devil's Lake, N. D., and knows from experience how abundantly the strawberry yields in the fertile soil of that great state. His advice should be followed everywhere.

DON'T ever stop it! Send it all the time. I can always dig up a dollar for a good thing!" writes H. B. Lloyd, of Ferris, Tex., in sending in his renewal for The Strawberry for 1907. And in the same mail came a letter from a Northern member of the family, A. V. Drown, of Oconomowoc, Wis., in which he says: "I have a full set of The Strawberry for 1906. Shall send them to the binder and have them bound for reference. They have been a great help to me the past season. I know of nothing better than

BROWN'S "Auto-Spray"

DOES THOROUGH WORK QUICKLY AND EASILY

because it has more power than any other hand sprayer made. That also gives it a wider range of usefulness than any other small sprayer. Yet it is the easiest sprayer in the world to operate. *15 seconds'* work at the plunger charges it with enough power to throw the spray for *10 minutes.*

The tank holds three gallons of solution and one of compressed air, and two pumpings discharge the whole contents. Our Auto-Pop Nozzle, controlled by one finger, regulates the spray from a stream to a fine mist.

Conveniently carried over the shoulder by a strap. All working parts of brass, no rusting, no clogging of nozzle, nothing to get out of order or cause trouble Let us tell you what our customers think of it. We make

ALL SIZES OF SPRAYERS

for all purposes, and guarantee every sprayer to prove satisfactory or money will be refunded. Tell us what you want to accomplish and we will suggest the right style for you to use.

Write for Spraying Calendar, the most complete and authoritative ever published, and a copy of our catalogue. Address

THE E. C. BROWN COMPANY, 61 JAY ST., ROCHESTER, N. Y.

Planet Jr. Tools

are guaranteed

—the best-working, easiest-running, longest-lasting, most reliable farm and garden tools. Designed by a practical farmer. Do the work quickly, right, without injury to plants Made of the very best materials, with good honest workmanship.

No. 17 Planet Jr Single Wheel Hoe, Cultivator and Plow. One of the handiest implements ever made for gardening. All cultivating parts are of high-carbon steel to keep keen edge. Specially designed to work extremely close to plants without injury. One man easily does the work of three to six.

Planet Jr 12-tooth Harrow, Cultivator and Pulverizer is a splendid tool, for berry-growers and market gardeners—invaluable wherever fine, close work is needed. The twelve chisel-shaped teeth and the pulverizer leave ground in the finest possible condition. Saves many times its cost, and turns hard work for three men into easy and better work for one.

A Planet Jr farm and garden tool for every need—Hill- and Drill-Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding Cultivators, Harrows and Orchard- and Beet-Cultivators—45 kinds in all.

Even if you have a Planet Jr write now for our new *1907 Catalogue*, showing photographs of successful gardening at all stages, also the interesting new models.

S. L. Allen & Co.
Box 1106D, Philadelphia, Pa.

Knight's Fruit Plants

EVERYTHING FOR THE SMALL FRUIT FARM

EATON The most wonderful advance over other Red Raspberries; Cumberland, Eureka and twelve other best Raspberries. Blower, Eldorado, Rathbun and ten other luscious Blackberries. Fifty varieties of Strawberries, all of the best money makers. Grapes, Currants and Gooseberries.

Our Catalogue Describes All of Them
and Contains Much Valuable Information

DAVID KNIGHT & SON · · SAWYER, MICHIGAN

Strawberry Plants Large stock of thrifty, young plants from a strain of prolific fruit bearers. Also Trees, Vines, California Privet, Asparagus Roots, Garden Tools, Spray Pumps, etc. Catalog free. Write.
ARTHUR J. COLLINS, BOX 415
MOORESTOWN, N. J.

The Strawberry—its all good." And from away down East, comes this cheery word from W. J. Colby of Brunswick, Me: "Your Strawberry is a peach, and don't you forget it!"

A Convenient Tool for Strawberry Folk

By R. C. Sabin

PARTLY in exchange for the many good ideas I have taken from The Strawberry, I wish to offer the following: A neat tool for cutting runners may be made of a common hoe. Have a blacksmith heat the shank and straighten it out true and straight, so that the handle will be perpendicular to the blade. You will then have a light spud or chisel with which you can cut one, two and sometimes three runners at a stroke. It will be found very nice for those who are too proud to bend the knee; or for those whose spinal columns have become ossified by lack of exercise. A stroke with this tool does not pull on the runner as much as does a stroke with the common hoe.

Ludington, Mich.

We are pleased to receive such suggestions as Mr. Sabin has offered, and are sure our readers will appreciate it. And we hope others may follow his example.

READERS of The Strawberry who fail to study its advertising columns lose much of interest and value to themselves. This thought is suggested by the fact that we have received during the last three weeks so many letters asking questions concerning certain articles advertised in The Strawberry, when the information asked for was clearly given in the advertisement itself. The Strawberry makes it a point to keep its advertising columns free from everything that is doubtful, and there is very little appearing in its pages but will be of interest to every one of its readers. We urge a careful reading of its advertising pages every month.

READERS of The Strawberry who are getting prices far above the market, just because their berries are better than the other fellows', constantly increases, and we expect every one of them to do so in 1907. In a note full of enthusiasm for his work and of kind words and suggestions for this magazine, Ellis D. Greene of Rochester, N. Y., has the following to say: "I have had no trouble in getting 15 cents for firsts, 20 cents for fancy, and 25 cents for extra-fancy when the choice in the market were 11 cents. The women and children were out watching and waiting for me. They said they never ate such berries before. I think from what little experience I have had in the past two years I shall have no difficulty in disposing of a good quality—all I can make an acre yield—and not go under 15 cents. All are willing and glad to get them at that when they find every berry good and fresh and the boxes well filled." Of course they are. That is just the experience of everybody who grows berries of high quality and packs them right.

NEVER in the history of strawberry culture has the value of adhering closely to well-founded rules been more deeply impressed upon growers than during the season of 1906. It is generally agreed that it was the most difficult season ever experienced by the strawberry world. Yet some of the most remarkable successes known, both as to quantity and quality of yield, are recorded. Why this is so is suggested by Samuel Cooper in his in-

Doing a Week's Washing In 6 Minutes—Read the Proof

THIS woman is using a 1900 Gravity Washer. All she has to do is keep the washer going. A little push starts it one way—a little pull brings it back—the washer does the rest.

The clothes stay still—the water rushes through and around them—and the dirt is taken out.

In six minutes your tubful of clothes is clean.

This machine will wash anything—from lace curtains to carpets, and get them absolutely, spotlessly, specklessly clean.

There isn't anything about a 1900 Gravity Washer to wear out your clothes.

You can wash the finest linen, lawn and lace without breaking a thread.

"Tub rips" and "wash tears" are unknown.

Your clothes last twice as long.

You save time—labor—and money.

You wash quicker—easier—more economically.

Prove all this at my expense and risk.

I let you use a 1900 Gravity Washer a full month FREE.

Send for my New Washer Book.

Read particulars of my offer.

Say you are willing to test a 1900 Gravity Washer.

I will send one to any responsible party, freight prepaid.

I can ship promptly at any time—so you get your washer at once.

Take it home and use it a month. Do all your washings with it.

And, if you don't find the machine all I claim—if it doesn't save you time and work—if it doesn't wash your clothes cleaner and better—don't keep it.

I agree to accept your decision without any back talk—and I will.

If you want to keep the washer—as you surely will when you see how much time, and work, and money it will save you—you can take plenty of time to pay for it.

Pay as much a week—or so much a month—as suits you best.

Pay for the washer as it saves for you.

I make you this offer because I want you to find out for yourself what a 1900 Gravity Washer will do.

I am willing to trust you, because you can probably get trusted at home. And, if your credit is good in your own town, it is just as good with me.

It takes a big factory—the largest washer factory in the world—to keep up with my orders.

So far as I know, my factory is the only one ever devoted exclusively to making washers.

Over half a million of my washers are in use.

Over half a million pleased women can tell you what my washers will do.

But you don't have to take even their say-so. You can test a 1900 Gravity Washer yourself. Then you will know positively.

Write for my book today. It is FREE.

Your name and address on a post card mailed to me at once, gets you my book by return mail.

You are welcome to the book whether you want to buy a washer now or not.

It is a big illustrated book, printed on heavy enameled paper, and has pictures showing exactly how my Washers work.

You will be pleased with this book. It is the finest even I have ever put out. Write me it once.

Find out just how a 1900 Gravity Washer saves your time and strength—preserves your health—and protects your pocketbook.

Write now—Address—R. F. Bieber, Manager "1900" Washer Co., 3041 Henry St., Binghamton, N. Y. Or, if you live in Canada, write to my Canadian Branch, 355 Yonge St., Toronto, Ontario.

Detroit Fruit, Poultry, Dairy and Farm Gardens

Pay Handsome Profits

We have them fitted up ready for operation and ranging in size, location and price

TO SUIT CUSTOMERS

For particulars write to

BOLTON REALTY CO., Detroit, Mich.

THE DICKY STRAWBERRY

The best one to plant with the Cardinal. A **Strong, Vigorous, Healthy, Staminate** variety. Fancy fruit, great cropper. Send for circular and price list.

C. S. PRATT, READING, MASS.

BERRY BASKETS AND HALLOCK **BOXES**

Also Beekeepers' Supplies sold at a reduced price and shipped from Central Michigan. Send for 32-page catalogue free. **W. D. SOPER, Jackson, Mich.**

How we keep American Fence Standard of the World.

Eighty per cent of all wire fence sold is American Fence. It takes fifty thousand miles of fence every month to fill the American farmers' orders for American Fence. That's enough fence to go twice around the world every month.

That makes American Fence Standard of the World and *keeps* it the Standard.

Tell you why. We make back the cost of thousands of dollars spent in improvements in fence in one-twentieth the time it would take any other fence-maker. Because we make and sell more fence than all other fence-makers put together.

That's why we have gone on making improvement after improvement in

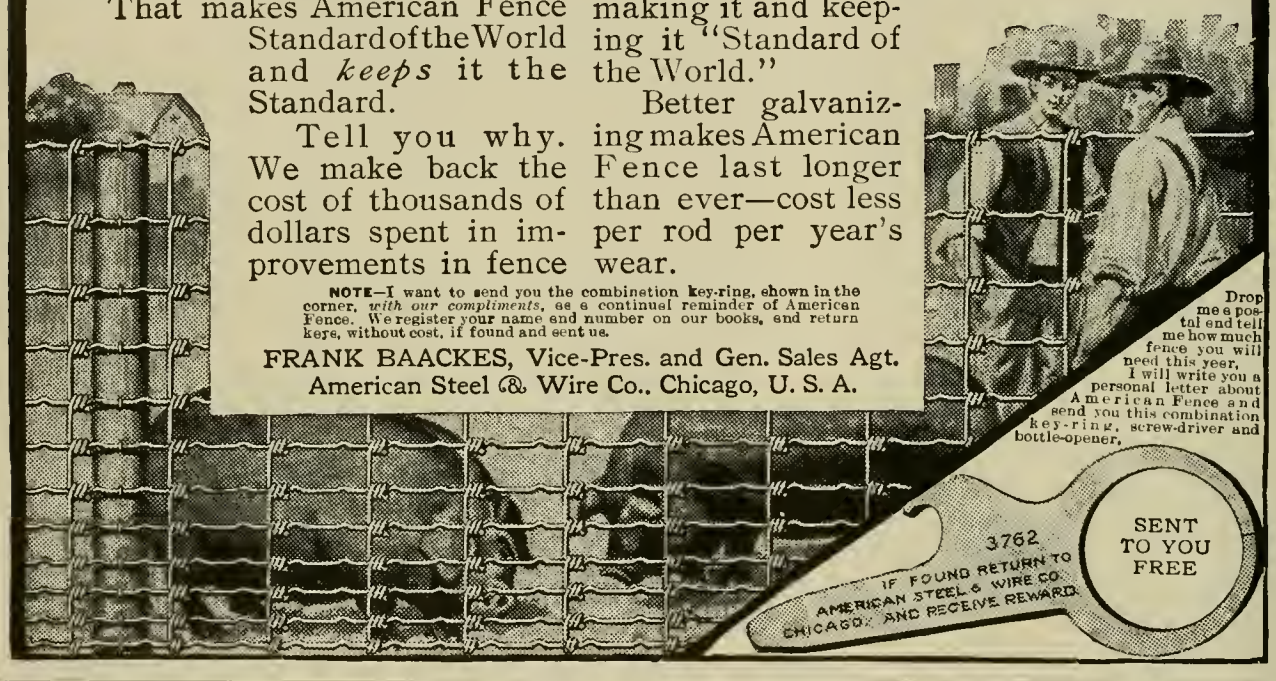
AMERICAN FENCE

making it and keeping it "Standard of the World."

Better galvanizing makes American Fence last longer than ever—cost less per rod per year's wear.

NOTE—I want to send you the combination key-ring, shown in the corner, *with our compliments*, as a continual reminder of American Fence. We register your name and number on our books, and return here, without cost, if found and sent us.

FRANK BAACKES, Vice-Pres. and Gen. Sales Agt.
American Steel & Wire Co., Chicago, U. S. A.


Drop me a postal and tell me how much fence you will need this yeer, I will write you a personal letter about American Fence and send you this combination key-ring, screw-driver and bottle-opener.
3762
IF FOUND RETURN TO AMERICAN STEEL & WIRE CO. CHICAGO AND RECEIVE REWARD
SENT TO YOU FREE

teresting article in another place in this issue, in which he reports a hard season in his section, accompanied by great loss of plants, but adds that where plants were properly mulched they came through the winter (1905-06) in good condition! That is the point, exactly. Where growers follow out religiously that which they know to be the right method, and do it season in and season out, success is virtually assured. Adopt a high standard—and live up to it, if you would be uniformly successful.

⚜ ⚜

I HAVE noticed that where an old strawberry bed or plantation has been plowed under, the soil in that spot has been more than ordinarily productive of other crops," says a writer in Green's Fruit Grower. "This is partly owing to the fact that manure has been applied to the strawberry bed as a mulch or to protect it from winter heaving. But there is another reason, and that is that the roots of the strawberries and the heavy foliage turned under by the plow is almost equal to plowing under the clover sod, thus the soil is left loose and friable and additional humus is added. But consider how little fertility is taken from the soil by a strawberry plant. The fruit of the strawberry is nearly all water. Its tiny seeds are the part of the berry which draws heaviest on the soil, but these are so small that the drain on the land in every case is very light. I consider that the strawberry takes but little fertility from the land and for this reason, in addition to many other reasons, the strawberry crop is a good one to grow."

⚜ ⚜

Books and Catalogues Received

Stark's Fruit Book for 1907 is bigger, better and more suggestive and inspiring than ever. From the beautiful colored cover to the last page there is matter of interest for the fruit-grower, and none may read its pages and witness in photographic reproduction the extraordinary results achieved by first-class trees and first-class methods without realizing that the fruitman has one of the most safe and profitable lines of business possible, and that the delights of living and working under conditions such as surround him are not found in any other calling. Our readers should send for Stark's Fruit Book. It is full of information and instruction that will help all who read it.

W. N. Scarff, of New Carlisle, Ohio, is out with his annual catalogue. It is neat, compact, and arranged for ready reference. Mr. Scarff combines poultry raising with his nursery business, and his Orpingtons and Wyandottes are fine.

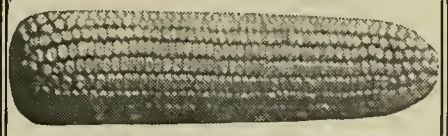
Walter B. Stokes, the well-known seedsman of Philadelphia, has issued a catalogue in which the illustrations are from photographs on his own grounds, and the typographic appearance of which is unusually fine. Mr. Stokes was formerly of the firm of Johnson & Stokes, and is one of the well-known specialists in seeds of the East.

R. M. Kellogg Co., Three Rivers Mich., has issued its 1907 "Great Crops of Strawberries," which is illustrated in a unique, handsome and profuse manner, and in addition to interesting facts concerning strawberry plants, contains a practical treatise on strawberry growing, the like of which never before has appeared.

One of the most tasteful catalogues that have come to us this season is that of the L. L. Olds Seed Co., of Clinton, Wis. Artistically and typographically it is very fine, the illustrations being very helpful and the arrangement of subjects convenient.

"Old Trusty" incubators and brooders, manufactured by M. M. Johnson, the expert incubator man of Clay Center, Neb., are well set out in the 1907 catalogue issued by Mr. Johnson, a copy of which has just been received. It is in truth a beautiful picture book, and of the most convincing sort, and you should send for a copy of it and get posted on matters relating to poultry production.

The Maule Seed Book is another publication that the gardener ought to have at hand. Mr. Maule has not hesitated to put out his season announcement in the most beautiful garb possible. Hence his 1907 Seed Book is a marvel of artistic proficiency. Mr. Maule has always been noted for his novelties. Many of the leading strains of vegetable and flower varieties have been introduced by him to American farmers and gardeners and are today producing wealth and beauty on thousands of farms and gardens. His reputation for new and valuable varieties is



DOERR'S YELLOW DENT

Boys We want everyone of you to grow and sell our corn in 1907. 4 lbs. sent postpaid to any address for $1.00. Special prices to Strawberry boys. Write us. Our letters tell how we bred and originated Doerr's Yellow Dent.

Genuine Rice Popcorn--large package by mail prepaid, 10 cents.

A. T. DOERR & SONS, HARVEL, ILLINOIS

LET ME QUOTE YOU PRICES

on buggies. I sell direct to users, and on trial. I pay freight, and refund money if any dissatisfaction. My FREE catalogue shows 125 different styles of buggies and a line of harness. Write me today and I will send you my catalogue by return mail, and quote you on the best buggies and harness made. Address me personally, **H. C. Phelps,** President Ohio Carriage Mfg. Co., Station 340, Cincinnati, Ohio.

"SARATOGA"

THE NEW STRAWAERRY

Introduced this season: with a record of 5918 quarts per acre at one picking in 1906, under the same culture given entire field of many varieties by toe originator. Fully described in catalogue with many other new and all the best standard varieties. Write for catalogue today and buy your plants of a **specialist.**

GEO. R. SCHAUBER, Box S, Ballston Lake, N.Y.

"Golden Gate" Strawberry

At the Mass. Horticultural Exhibition in 1906 it won $23 in prizes on 7 qts. Seven berries have filled a quart. It won the $10 prize for the best one quart of any new seedling introduced since 1902 in competition with the highly praised **Cardinal** and other varieties.

PAN-AMERICAN STRAWBERRY set in May will produce as much fruit the following August, September and October as any variety in the spring and will sell for 50 cents per quart by the crate. Send for circular.

S. H. WARREN, WESTON, MASS.

SENATOR DUNLAP STRAWBERRY

The best all 'round strawberry on the market. It will be greatly to your advantage to procure plants at **headquarters** from the originator. Send to me at **Urbana, Illinois,** for circular and price list.

J. R. REASONER

BERRY PLANTS

We are headquarters for plants of the new "Oswego" strawberry and 50 other best new and old varieties. Also the "Plum Farmer" raspberry and other desirable kinds of Raspberries, Blackberries and other Fruit Plants, etc. 23 years experience. Highest awards at World's Fair. We invite correspondence. Catalog free.

L. J. Farmer, Box 732, Pulaski, N. Y.

Smallwood's Fruit Plants

DEWBERRIES—One of the most profitable crops the small fruit grower can grow.

KENOYER BLACKBERRY—The earliest to ripen and one of the largest blackberries.

Other varieties of Blackberries, Strawberries, Gooseberries, Grape Vines, Pie Plant. **Now is the time to order for spring planting.** Write for Price List and Culture.

T. H. SMALLWOOD, R. 1 Box 5, FT. SCOTT, KAN.

so well known, that progressive farmers and gardeners wait for his Seed Books to know what new things in seeds and plants are worth trying. His 1907 Seed Book will not disappoint them in this respect. The book contains 152 pages of handsome letter press and illustrations, and two beautiful colored cover pages. It will be sent free to all applicants by Wm. Henry Maule, Seedsman, Philadelphia, Pa., provided they mention The Strawberry.

Reforestation is a national problem. The scarcity of the black walnut, chestunt, oak, etc., is growing to be alarming. The man who plants chestnut trees now is depositing a valuable bank account for himself and children. Chestnuts are good food and command a high price in the nut market. Ten thousand year-old chestnut trees are being given away to property owners who write to the Gardner Nursery Company, 33 Nursery avenue, Osage, Iowa. Now is a good time to get a start and plant chestnut trees.

The 1907 catalogue issued by the Bateman Manufacturing Co., who make the Iron Age farm and garden implements is a book that every soil tiller may peruse with profit. The aids given the modern horticulturalist in the way of ingenious implements and tools is suggested in this publication, which will be sent free to all our readers who will address a postal card to the Bateman Manufacturing Co., Box 543, Grenloch, N .J.

Storrs & Harrison of the Painesville (Ohio) Nurseries have issued a very attractive catalogue this season. It is a book of 172 pages and every page of value. A copy will go forward to you at once by the asking.

Carl Sonderegger, whose German Nurseries at Beatrice, Neb., have become so famous, has done himself proud in putting out a catalogue of his 1907 offerings that is unusually fine and attractive. The prairies of the West have become of late years the home of many important horticultural enterprises, and Nebraska counts the German Nurseries as one of the institutions of which her people are proud.

The Dingee & Conard Co., who are among the leading rose growers of America, are making a specialty of the famous Killarney rose this season, and have it beautifully illustrated on the front cover of their "Guide To Rose Culture," which is sent free to all who ask for it. Write for this book to Dingee & Conard, West Grove, Pa., and secure, free of cost, this invaluable guide to rose growing.

Write S. G. Robinson Jr., R. F. D. 2. West Toledo, Ohio, for a full explanation of his remarkable "natural brooder," an invention that will be of interest to all poultry folk.

AMONG the spray materials that are of increasing popularity is Good's whale-oil soap, a preparation that has the endorsement of the Department of Agriculture at Washington and of many experiment stations. One feature about this remedy for San Jose scale and other enemies to plant life is the fact that its principal ingredients—potash and whale-oil—are fertilizers of large value, that aid plant life instead of hindering it. Send to James Good, 936 North Front street, Philadelphia, for full information.

THERE is real economy in buying the best tools. A man doesn't build a barn in a slipshod manner for the sake of saving (?) a few dollars. No more should he think of buying cheap garden tools when he wants them to be of the greatest service to him and expects to use them year after year. This observation at once suggests the methods employed by S. L. Allen & Co. to produce the highest grade of tools that the combination of the best of materials and the best of workmanship may do. For instance, the making of Planet Jr. is under the watchful eyes of five inspectors whose sole duty it is to see that these tools are perfect in every detail. A half-million users know how well they do their work and understand why Planet Jr. tools can be guaranteed. The new 1907

Fruit Packages

THE PACKAGE SELLS THE FRUIT

KEEP this in mind when ordering your packages for the coming season. Remember that we have been making Fruit Packages over a quarter of a century and know how to make them right.

We use the best timber we can get, make it up with modern machines, and the result comes as near package perfection as can be attained.

Order early wherever you buy, but don't forget our Trade Mark.

We make all kinds of boxes and baskets.

Send for catalogue and price list.

THE PIERCE-WILLIAMS CO.,

South Haven, Mich. and Jooesboro, Ark.

Unusual Offer ot a World-Famous Manufacturer

YOU can now have your washing done by gravity power, for a washing machine has been invented which actually makes the rotation of the earth on its axis do all the hard work of the weekly wash.

The machine is very simple in construction, very easy in operation and very wonderful in results.

After the dirty clothes are put in the tub of the machine and covered with hot suds, all that is needed to start the work of washing is a slight push of the hand. The strength of a small child would be far more than enough to set the machinery in motion. And, once started, the washer is easily kept going by slight pushes and pulls with your hand. The machine oscillates slightly and you exert but very little strength, because the earth power gravity does all the hard work. You can sit down to do your part, if you prefer.

This Gravity Washer is made only by the world-famous 1900 Washer Co., of Binghamton, N. Y., who have patented the machine. And to show you the wonderful work this machine will do, the makers offer to send a Gravity Washer to any responsible party, for a month's free trial.

You need not send them any money in advance—make any deposits--or sign any bonds. All you have to do to obtain the proof that you can be rid of wash-day worry and wash-day work forever and ever is: write the 1900 Washer Co. that you are willing to try one of their Gravity Washers. They will send you the washer at once, all freight prepaid (so you are put to no expense for the trial) and you have only to take the washer home and use it a month.

The makers ask you to give the washer a thorough test—to wash everything from lace curtains to carpets with it and if you are not perfectly satisfied, you need not keep the washer. This test will cost you nothing. It is free.

If you decide to keep the Gravity Washer, after using it a month free, you can, if you wish, pay for it by the week or by the month (the makers let you do as you choose about this).

Full particulars of this liberal guarantee, of the free trial offer and of the "Pay as it Saves for You" plan of selling, may be had by sending your name and address to the General Manager of the 1900 Washer Co., Mr. R. F. Bieber, 301 Henry Street, Binghamton, N. Y.

Big Saving to You
On the Best Manure Spreader Made

FIGURED from any point of the compass—taking the question of the ***first cost***—the question of quality—the question of capacity—the question of finish—the question of strength—the question of correct principles—the question of right working

We, the makers of this celebrated ***American Manure Spreader*** will save you money every time on one of our high-grade machines. We not only save you money on the *first* cost—but we save you money per year's wear—because—the ***American*** is made of the highest quality, best material possible to secure—and made on correct principles by skilled workmen.

If every purchaser of a Manure Spreader would first compare the ***American*** with all other makes, *we* would sell all the Manure Spreaders that are sold.

We know that's pretty strong talk—but the ***American*** will make good every claim we make for it. It is positively BEST BY COMPARISON—and we want to prove to you all the claims we make. We will sell you

Direct from the factory and pay all the freight to you

at our low factory price, which leaves out all the jobbers' and dealers' dividends.

Set it up and use it, in your own way, on your own farm, for a full month—to *prove* every claim we make for it. If the machine *isn't* exactly as we claim it is—and *doesn't* do the work exactly as we say it will, and isn't perfectly satisfactory to you all you have to do is to send it back to us—*and the month's trial won't cost you a penny.* In this way you may have

Free Use of an American Manure Spreader for a Month

Now we are the only manufacturers of a complete line of Manure Spreaders selling direct from factory to user. We are the only manufacturers of Manure Spreaders selling on ***30 Days' Free Trial***—and the ***American*** is

Sold on Time or For Cash

The American is made in 10 styles and 5 sizes—a size for every purpose, and it's the greatest money making implement you can have on your farm. It's a time-saver, a labor-saver, a profit-maker. Take care of your land—*and your land will take care of you.*

The question of fertilization has too long been overlooked by many farmers. Are *you* guilty? Our Big Spreader Book tells the rest of our story—it fully describes and gives pictures of our full line of American Spreaders. We want to send you this Book, FREE—the handsomest Spreader Book ever issued by anybody.

We keep a full stock of ***American Spreaders*** in all leading trade centers, and also carry a full line of repairs at these points, thus insuring quick delivery of parts in case of breakage.

Now why not get your order in at once for an ***American Spreader?*** We are now giving Spring dating on early orders, and you might just as well have your Spreader at once. It doesn't cost you any more to buy now instead of later.

Write for our Big Book of full particulars and let us quote you a price direct to you—delivered at your station—all freight allowed. No matter what Spreader you have been thinking of buying—no matter what Spreader you have been looking at—send for our Book and Special-Delivered-to-You-Price—before you finally decide. Better write to-day—NOW.

AMERICAN HARROW COMPANY, 4550 Hastings Street, DETROIT, MICH.

Planet Jr. catalogue shows and tells about the Planet Jr. seeders, wheel hoes, horse hoes, riding, orchard and beet cultivators—45 different kinds in all, with the new and practical improvements. It is a valuable book for farmers and gardeners, as well as for those who already have Planet Jr. tools, and will be mailed free to every reader who sends a postal to S. L. Allen & Co., Box 1106D, Philadelphia.

⚜ ⚜

R. H. SHUMWAY of Rockford, Ill., is a seedsman who has won success through square dealing. From him his patrons get not only good seeds, true to name, but also get a lot of extra packages. He publishes a fine catalog. Look up his advertisement in this paper and write him for it.

⚜ ⚜

A HANDSOME little publication comes to our desk from the Bateman Manufacturing Co. of Grenloch, N. J., the celebrated makers of the Iron Age garden implements. This paper is called Iron Age Farm and Garden News, and is full of helpful suggestions to one who tills the soil in an intensive way. Like the implements it represents, this publication is neat, trim and practical, and our readers will find in it much of value to them if they will send to the publishers for it.

⚜ ⚜

THERE once was a time when the family in the city had a distinct advantage over their rural cousins in being able to hear the greatest singers, orators, musicians and humorists, but since the perfection of the phonograph this is no longer true. Now, when the country dweller comes home at night, he can settle down in an easy chair at home with his family and listen to the finest vocal and instrumental soloist or a concert by the best orchestras and bands. There have been many and varied improvements in phonographs of late years, but the Duplex Co. of Kalamazoo have used an entirely new and unique idea and seemed to have solved the old time problems to perfection. By means of a double horn they have been able to catch all the sound waves, that have hitherto been lost and they also claim to have eleminated entirely all the rasping sounds that were so disagreeable in the old-style machines. These, however, are only a few of the many points of superiority which they set forth so attractively in their advertisment in this issue. If you would have a perpetual source of amusement, entertainment and inspiration in your home, write the Duplex Phonograph, Co. 310 Patterson St., Kalamazoo, Mich., and they will send you a Duplex for a seven days' free trial.

⚜ ⚜

I'VE heard the locust's song today—
The summer's first! It seemed to say:
"The crooning brook, the lakelet blue,
The fields and woodland wait for you.
Why linger in the city, fool,
When country lanes are near—and cool?"
I've heard the locust's song today,
A luring lilt—I will away!

—New York Sun.

⚜ ⚜

CURRIE BROS. of Milwaukee, Wis., is one of the largest farm and garden seed houses in the West. This concern has worked up an enviable reputation on the reliability of its seeds. Their favorite phrase, "Currie Bros. Seeds always grow," is justified in their large and growing business. They make a specialty of northern-grown seeds. Write for their new seed annual, just off the press. It's sent free.

⚜ ⚜

PROBABLY some part of your soil is not paying you as well as it should. Most likely you haven't a sufficient variety of feed in your pastures. Anyhow, you will be interested to judge for yourself and find out when you write a postal card to the address below and ask for the free book on pastures and the Sterling Seed 1907 Catalogue, containing 132 pages, illustrated. Also tells (on page 2) how catalog readers get eleven free vegetable and flower premiums. It will pay you and interest you very much to read these books. Write today to Northrup, King & Co., 296 Hennepin Ave., Minneapolis, Minn.

⚜ ⚜

JOHN H. PLATT, of Elmira, New York, writes The Strawberry: "I intend to 'cut' farm crops this year, and give my time to strawberries." There is no doubt but Mr. Platt will find his course a profitable one. General farm crops can be grown profitably only on an extensive scale. One acre of strawberries grown under intensive methods will yield a profit per acre, where market conditions are satisfactory, from five to ten times as large as generally is received from general farm crops.

⚜ ⚜

HOW is the old strawberry bed? Did the mulch blow off in places? If so, replace it. If any water stands on the plants, it's a sure sign that the ground is not sufficiently drained. Prize berries don't grow at the bottom of ponds of water holes!—Farm Journal.

⚜ ⚜

THE publishers of The Strawberry are not a little pleased with the showing made in its new department of Classified Advertising this month, and urge our readers to note carefully the offerings made there. More thad that, as this department has been created for the benefit of our readers and as a sort of clearing-house for all who wish to sell or trade, buy or hire, find employment, or what not, we hope

to see the department generally adopted as their medium. The cost is so low and the opportunities so great that they will find it of immense advantage in any line of sale, purchase or exchange. The members of The Strawberry family, now so large and widespread, constitute of themselves a producing and consuming community the volume of whose business is very large, and this department is their particular medium for mutual help and service.

A Few Experiences in Strawberry Culture

By W. H. Chaffee

I LOOK forward with great interest and pleasure, each month to the next issue of the Strawberry each and every one is so interesting. Only those that have had considerable experience in strawberry culture can fully appreciate the full value of the magazine, while those of little or no experience, can see in the Autobiography of a Strawberry Grower and the experience of others, what they may avoid by following the advice of The Strawberry.

And is it not a grand work where one gets the advice of the most expert strawberry growers for the mere asking? It would seem as though no one with a reasonable amount of intelligence need make even a temporary failure if only he could carefully read each issue.

Before the advent of The Strawberry there was little said in any publication about strawberry culture, and one often found himself on the wrong road and had to go back to the forks of the road to get a new start; and perhaps by that time he would be so discouraged or disgusted that he would not feel like making another attempt. Too many want to start on a large scale, having but little idea of the care and labor required, the varieties adapted to their soil and climatic conditions, etc.

If I were starting in a new locality at strawberry raising, I would first of all go around among the strawberry growers in that vicinity and note the nature of the soil, moisture, drainage, etc. Then the varieties used by the most successful and their mode of culture, fertilizing, etc. Then take two or three of the best varieties and plant one acre and give it intensive culture. The ground must be fertilized and put in the best condition to start with. Then take fifty plants of each of eight or ten other varieties that I think I would like to raise and give them a trial, and so on, from year to year until I had the best varieties suited to my soil, climate and market. And I would send only to good, reliable growers and get thoroughbred plants to start with, as the difference in price between good and common plants is nothing compared to the difference it will make in the value of your first crop. I often find that varieties that may do well with others may not do

A Gift to Flower Lovers

By special arrangement with the publishers of THE GARDEN MAGAZINE we are enabled to present to our readers the most attractive offer ever made. Every florist knows that GROFF'S HYBRID GLADIOLI are the most famous in the world; they are the most difficult to secure and the most expensive gladioli grown. The arrangement we have made enables us to make this extraordinary offer:

25 Groff's Hybrid Gladiolus Bulbs - -
Six months' subscription to Garden Magazine
One Year's subscription to The Strawberry
$1.75

GROFF'S HYBRID GLADIOLI WON THE GRAND PRIZE AT THE WORLD'S FAIR AT ST. LOUIS. They will give you a flower garden rich in colors of exquisite shade. No other flower is of such easy culture or embraces so large a range of color. The 25 bulbs we give you free will make your garden a veritable fairy land.

THE GARDEN MAGAZINE is one of the handsomest and most valuable publications in the world. It tells how to handle your flower and vegetable gardens to insure perfection. It comes once a month.

THE STRAWBERRY is handsomely printed, beautifully illustrated and its Correspondence School Department is the most valuable feature ever adopted by a horticultural publication. All your questions regarding strawberry production are answered by the world's greatest strawberry expert. It also is a monthly visitor.

If you wish to secure the bargain of a lifetime send us $1.75 and get The Garden Magazine for six months, The Strawberry for one year and 25 of Groff's World-amous Hybrid Gladioli, guaranteed to reach you promptly and in good condition.

The Kellogg Publishing Company

THREE RIVERS, - - - - MICHIGAN

GROWING TOMATOES FOR QUALITY, QUANTITY AND EARLINESS

Is the name of the best booklet ever issued on the subject of tomato culture. It contains 30 pages and illustrations fully describing the Potter method of raising tomatoes. By this method you can have bigger and better fruit and weeks earlier than otherwise. It teaches the secret and science of tomato culture; forcing the fruit by systematic cultivation and pruning. This book is invaluable to every gardener, whether he grows one dozen or one thousand vines.

The subjects covered are: History of the Tomato; Its Nature and Habit; Tomato Culture in General; The Potter Method; Plants and Planting; Preparing the Ground; Setting the Plants; Cultivation: Pruning and Staking the Vines; Picking the Fruits, Ripe Tomatoes at Christmas; 40 Tomato Recipes; Best Tomato Seeds,

The information is condensed and to the point—just what every grower wants.

The cut herewith shows one of a large number of vines in my garden this season. Notice that each stalk is loaded with large, perfect fruit from top to bottom. This is the result of my method. It is easy to raise this kind of fruit when you know how. Just send for my book—price 50 cents, postage or money order. Your money back if not satisfactory.

FREE SEED—To everyone ordering my booklet within the next 30 days I will send FREE with each book one package each of the best varieties of early and late tomatoes. I make this offer so that you will get ready now for your spring gardening. Don't wait until the last minute when the rush is on. Send for my booklet today, and I know you will be thankful that you made such a wise investment.

T. F. POTTER, Tomato Specialist, Dept. H, DOWNERS GROVE, ILL.

THE KEWANEE SYSTEM OF WATER SUPPLY

A City Water Supply without Water Tax

Will take care of your requirements for house, garden, barn, etc. Always an abundant supply of water for use anywhere you want it, at any moment day or night. Just the thing for

Strawberry Culture, Flower Beds or Vegetables

No elevated tank. Satisfaction and absolute safety. Sufficient pressure for **ample fire protection.**

We guarantee against freezing, collapsing, constant necessity for expensive repairs and other annoyances common in other systems of water supply.

We absolutely guarantee satisfactory results with every Kewanee system installed. Over 7,000 outfits in successful operation. Send for catalogue No. 15, which explains everything and tells where Kewanee systems may be found in your state.

KEWANEE WATER SUPPLY COMPANY

NEW YORK — DRAWER R, KEWANEE, ILL. — CHICAGO

STRAWBERRY PLANTS

Complete assortment of varieties. Try **EKEY, EARLY HATHAWAY, NEW HOME.** Prices are right. Our Strawberry Plants are grown on new land that makes an abundance of fibrous roots. The plants are thrifty, heavy crowns, carefully trimmed of surplus vines and leaves, tied in bundles of 26, packed in slated crates.

Our Peaches

are exceptionally fine and we know are just what you want. Order before our lists of varieties are broken.

Our Apples

are on whole root. They are strong, healthy, well-rooted and first class in every respect. Complete list of varieties. One Yellow Transparent apple tree eight years old last season netted $8.00

We also have a good stock of

PEAR, PLUM, CHERRY and QUINCE TREES, ASPARAGUS ROOTS, GRAPE VINES and CALIFORNIA PRIVET

Order at once. Illustrated Catalogue Free.

J. G. HARRISON & SONS

Box 200 — BERLIN, MD.

Save Your Trees

Kill San Jose scale and other destructive parasites with a spraying solution of

GOOD'S Caustic Potash Whale-Oil **SOAP NO. 3**

Sure death to insects. No sulphur, salt, mineral oils, or any substance harmful to plant life. Endorsed by U. S. Dept. of Agriculture. Pocket Manual of cause, treatment and cure of tree diseases, free. Write today.

JAMES GOOD

Original Maker, 936 N. Front St., Philadelphia

NATURE'S RIVAL BROODERS

THE Brooder that rivals nature because it has a hover as natural as an old hen. Send today for my circular explaining why they raise more and stronger chicks than other Brooders, also why **they cost you only 75c to $1.00 each.**

S. G. ROBINSON, Jr., Inventor and Patentee, R. F. D. 7, West Toledo, O.

well with me, and I go slow in planting any considerable number of one variety until I have given it a good trial. When I read of the wonderful yields of some varieties that I have tried and found them perfectly worthless, I realize how much care is required in selecting the varieties to make a success at strawberry raising. I have tried and discarded nearly all the good old reliable varieties after finding them to be not what I wanted. Most of them yielded well, but berries were too small. A large berry of good quality will outsell any small berry in any market, and to peddle they are just the thing.

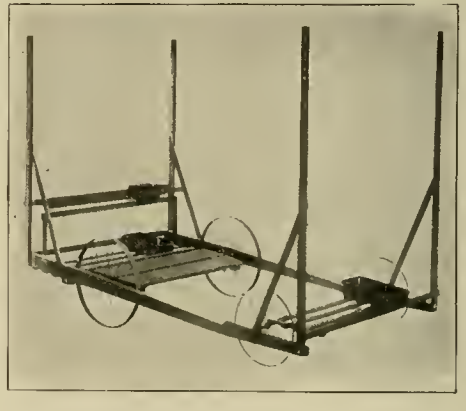
A considerable proportion of my customers are people that have come up from off the hot dry plains and many of them are strawberry growers and have just finished marketing the last of their crop and think they have had strawberries enough for one season. When I go up to a group of them and ask them if they would like a few nice mountain berries they say, "No, thanks." But when I show them the goods, it's "Oh! Oh! Mary! Johnny! Alice! come here and see these beautiful berries!" And then its "Give me a dollar's worth," until they are all supplied. The next time I go to that camp they come running with their basins, pans and dishes, and say: "Now any time you come this way, do not fail to call on us."

No matter how many berry peddlers, the one that has the large, sweet, luscious berries makes the sales, regardless of the price, and as there is as much in selling as in raising, one can not be too careful what varieties he grows.

Nearly every seed catalogue has some new wonderful variety that is a winner and they ask a fancy price for their plants. I used to bite at most of those offers, but have failed to get anything yet, with one exception, that was any use to me. While some were quite good in a family patch they were not quite the thing in a commercial way.

The worst I ever got was after reading of a wonderful new berry—the Mexican everbearing strawberry which was a wonder—and I found it so. Of course, it was high-priced, but that made no difference. I sent the cash and received the goods. Well, the plants did look promising, and I

Webster's Picker's Chariot



This Chariot is used for finger weeding, layering runners, removing blossoms and picking.

It will carry 32 boxes.

Weighs 35 pounds; size, 3 feet by 5½ feet.

One picks and carries all berries in the shade.

PRICE:

SINGLE CHARIOT -	$ 4.50
TWO CHARIOTS FOR	8.50
THREE CHARIOTS FOR	12.50

Special prices on larger quantities.

Anyone buying a chariot not satisfied after one day's trial can return same at my expense when all money paid will at once be returned.

GEO. WEBSTER, Christiana, Pa.

fertilized and carefully prepared the ground and set the plants, and the way they grew and multiplied was a marvel; and such a swamp of large, fine-looking plants I had that fall was worth going some distance to see. And as I had plenty of space where other wonderful varieties had failed, I soon had them turned under, the ground carefully prepared, and then set my latest venture.

The next spring when they did not bloom I was a little suspicious that there was a "nigger in the fence" somewhere, but in order to give them a good trial let them stand that season until the next spring. I would not let them make any more plants, and how they did grow! The next season I watched them with anxious care until after all the other varieties had bloomed and set their fruit, when I gave them my final inspection and not a bloom could I find. That was the last straw, I went to the tool house and got the mattock and in about fifteen minutes that patch looked as though a large band of San Joaquin tuley rooters had camped there for a week. I said to myself "You old Reuben! when are you ever going to know anything?" and I made up my mind right there that I never would buy plants or handle any plants that did not come from some old reliable strawberry grower. Since then I have the satisfaction of knowing that the varieties I get do well under some conditions and are not of the never-bearing variety. I am willing that plant growers shall do this testing and, if they pronounce them extra-good, I will try them and see how they will do for me.

Will say in closing that the value of the aid of your publication to one just starting in strawberry raising represents the difference between failure and success; the difference between one or two years of experimenting and its losses and a year or two with a reasonably good income; the difference between learning a trade from a good mechanic and picking it up yourself. That is what I think of The Strawberry and its value as an instructor.

Ahwahnee, Calif.

WE are under obligations to W. Atlee Burpee & Co. for several very fine post-cards illustrating the grounds of this well-known firm of seed growers, whose name stands for progressive horticulture everywhere. Not only does the Burpee company grow seeds, but their Scotch-collie kennels are among the best in the world. Their beautiful grounds just out of Philadelphia are as nearly ideal as anything we have in America. Burpee has done much to give rural life dignity and culture, and his success, therefore, is not only financial, but adds to the moral and esthetic riches of the country.

THE name of J. G. Harrison & Sons of Berlin, Md., is one that for many years has been synonymous in the public mind with integrity and square dealing. With more than a thousand acres given over to nursery stock, this company covers a wide range of the horticulturist's needs, and we take pleasure in welcoming them to the advertising pages of The Strawberry.

CLASSIFIED ADVERTISING DEPARTMENT

Advertising in this department costs 3 cents a word. Numbers and initials count as words. Cash must accompany order. No ad. accepted for less than 50 cents per insertion.

AGENTS WANTED, CHANCES, ETC.

MEN AND WOMEN—If you sell vermin powder, using spare time, you will never be without money. No poultry vermin, roaches, ants, waterbugs, etc., can exist where used. Big inducement. Write for proposition. Vermin Powder Co., Scranton, Pa. 4

$150 TO $300 a month to "pushing" agents (either sex). Steady employment in your own locality. $400 and upwards to high class state or general agents. A chance of a life-time. Write for full particulars to Jas. Charles, Richmond, Ind. 7

PAUL BROTHER'S VIOLET INK, send 25 cents for recipe for making it. It sells in the city for two dollars for pints. Costs 8 cents. Buy recipe and make money out of it. Stamps taken. Asa O. Pence Converse, Miami County, Ind. 3

WE want one lady or gentleman to take orders and deliver for us, rapid seller, highest quality goods, sales in almost every house. Best of pay and no money required to carry on the work. We will send a proposition as soon as we hear from you, also sample pair of 6-inch shears for 28 cents—stamps or silver. Write at once. United Shear Co., Westboro, Mass. tf

WILL YOU consider investing $100, $1,000, or $10,000 in safe and profitable business, 8 to 14 per cent or more assured? If so, write us. C. W. Munson & Son, Box 644, Toledo, O. 3

BOOKS AND MAGAZINES

DO YOU WISH to secure copies of the first volume of The Strawberry? If you do we are now in position to supply them. A notice inserted in the January issue offering $2 for a volume has brought offers of several sets. Only one was needed to fill the order. We shall fill all requests in the order received. They cost us $2 a set. Please remit $2.25 to cover postage. The Kellogg Publishing Co., Three Rivers, Mich.

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

DOGS, PETS, ETC.

CHOICE Fox Terrier Puppies for sale. They are nicely marked and sharp as tacks. No better house or rat dog ever lived. If you want a standard bred Fox Terrier at $4 for females and $5 for males, write at once. I guarantee satisfaction. Arthur Dicken, Route 7, Bellevue, Ohio. 5

FOR SALE—half blooded Scotch collie male pup 2 months old. Color, brindle. Price $5.00. R. L. Keith, Franklin Grove, Ill. 4

FARMS AND LANDS FOR SALE

STRAWBERRY LANDS. Men of national reputation as strawberry growers who are entirely unbiased claim that there is no region where strawberries grow to greater perfection than in this vicinity. We can sell you this fertile land at $10.00 per acre and some choice land within 3 miles of the city limits of Superior, the second largest city in Wisconsin, for $25.00 per acre. We have no drouths or floods in this region. A perfect climate. Easy terms. Special inducements to strawberry growers. No money down at all if you settle this spring. We have unexcelled markets. Write at once for the special bargains. Each inquiry will receive careful attention. Clover Belt Land & Loan Co., Solon Springs, Wis. 3

STRAWBERRY FARMS and Country Homes in the Tidewater section of Virginia. Some beautiful waterfront properties. Wilcox and Goodenow, Norfolk, Virginia. 7

HOUSE PLANS

GOING TO BUILD? Send stamp for particulars or 53 cents for handsome book of California Bungalows. Most cosy and inexpensive of America's Homes. R. M. Lamberth & Co., Dept. J, Los Angeles, Cal. 3

MUSIC

MUSIC TEACHERS and School Teachers! Double your income by studying, by mail, Courtright System Musical Kindergarten. Materials for school and all instructions, Fifty Dollars. Lillian Prudence Conrtright, 150 Lenox Avenue, Bridgeport, Connecticut. 3

RESURRECTION MORN" (By Parker). Greatest Easter Song ever written. More popular than "Holy City". Introductory price, 15 cents (thirty days only). Parker Music Co., 113 West 40th St., N. Y. Catalogue free. 3

PLANTS AND ROOTS

MAGOON STRAWBERRY. The grandest berry on the Coast. Should be grown in hills. Twenty-five cents per dozen; by mail only. R. W. Turner, Gresham, Ore. 3

MICHIGAN and Cobbler Potatoes, millions of vegetable and strawberry plants. Danish Cabbage Seed at $2 per lb., postpaid—cash. F. M. Pattington, Scipioville, N.Y. 3

STRAWBERRIES—Some 200,000 strong, well-rooted plants, No. 1 stock. Must be sold by May 20. Thirty varieties of the best. Prices reasonable. Send for my descriptive catalogue. C. W. Graham, Afton, N. Y. 3

STRAWBERRY PLANTS THAT GROW." Best varieties; also Raspberry, Blackberry, Gooseberry, Currant, and Grape plants, Asparagus Roots and Seed Potatoes in assortment. All stock warranted true to name and of grade represented. 10 page catalogue with 25c dueblll free to each inquirer. C. E. Whitten, Box 27, Bridgman, Mich. 3

FOR Potted Plants and Garden Flowers: Acme Flower Food. Clean, odorless, and a truly wonderful grower. Great for plants under glass. A trial will convince you. Trial box 15 cents, box three times as large 30 cents, post paid. Big thing for agents. Acme Specialty Company, Department B, Erie, Pa. 3

POULTRY, EGGS, ETC.

A WINNER." My White Wyandotte Pullet, by Lambert, scored 96¼. Stock and eggs from Duston strain for sale. Karyl Wright, Conneaut, Ohio. 5

BANTAM EGGS. America's Best. Send 2 cent stamp for circular. A. A. Fenn, Box 20, Burlington, Wis. 6

BARGAINS, stock or eggs. Thoroughbred Poultry, Ducks, Geese. 6,000 prizes, circular free. Charley Smiley, Milligan, Ind.

DICKEN'S WHITE ROCKS have fine, shape, size and color. I have some choice matings for this season, if you want birds of quality. Book your order with Dicken for White Rock Eggs; none better at any price. Ten chicks guaranteed from each setting. 15 eggs, $2.00. Arthur Dicken, Route 7, Bellevue, Ohio. 5

EGGS. Best strain White Plymouth Rocks, pure white, large birds, prolific layers. E. J. Kirby, Covert, Mich. 4

EGGS make money and Rose Comb White Leghorns, R C. Black Minorcas and Partridge Plymouth Rocks make the eggs. High class stock. Per setting, $2.50. Few cockerels cheap. Frank Stevens, Sycamore, Illinois. 3

15 ROSE COMB Brown Leghorn Eggs, 75 cents. Henry Tiedemann, Hammond, Ind. 6

90 VARIETIES. 2,000 Birds. Hatching Eggs a specialty. Dogs, Ferrets, Pigeons, Hares, etc. Descriptive colored 60 page book 10 cents. List free. J. A. Bergey, Box 37, Telford, Pa. 3

ORPINGTONS, S. C. Buff and White, Blue Ribbon Winners, score to 95. Eggs, one setting, $3.00. Two, $5.00. Guaranteed to produce winners. Frank Crowell, Granger, Minn. 4

PIGEONS, Mated Homers—choice stock. Misses M. E. and H. M. Smith, R. F. D. 3, Wheaton, Ill. 3

PURE BRED POULTRY and Eggs of twenty kinds for sale, Barred and Buff Rocks, Pekin Ducks, Bronze Turkeys, Toulouse Geese, Bees and Fox Hounds a specialty. Enclose stamp for catalogue. J. Fred Foy, Redfield, Ia. 4

PURE bred Pekin ducks for sale, 650 selected breeders. Rankin-Hallock strain, fine birds. Eggs by 100 or 1,000. Golden West Duck Ranche, Joliet, Ill. 4

R. C. B. Leghorns. Every bird in pen laying in December. 15, $1.50; 2nd choice, $1.00. A. L. Gould, Gilman, Illinois. 3

ROSE COMB WHITE and Rose Comb Brown Leghorn Eggs, 15, $1.00; 39, $2.00. Jack Cook, Bluffton, Ind. 5

ROYAL BLUE BARRED PLYMOUTH ROCKS; Eggs for sale. A good hatch guaranteed. George W. Watson, Eldorado, Illinois. 4

RHODE ISLAND REDS, Light Brahmas, White Barred Rocks, White Leghorns and Wyandottes. Hardy, prolific, farm bred pure stock. For "Birds" at moderate prices or "Eggs to Hatch" at 10 cents each write Walter Sherman, Berry Patch, Newport, R. I. 5

ROSELAWN POULTRY YARDS will furnish eggs for hatching from the following varieties of fancy fowls: Toulouse, Embden and White China Geese at 20 cents each; Indian Runner Ducks, $1.25; Pekin and Black Cayuga Ducks at $1 per setting of 13 eggs; also Rose Comb Black Minorca and Black Tailed Japanese Bantam Eggs at $1.50 per setting of 15 eggs. I. F. Alexander, Prop., Convoy, Ohio. 3

STANDARD-BRED Prize-winning Barred Plymouth Rocks and S. C. Brown Leghorns. Eggs for hatching from both breeds. Young stock for sale. James W. Herndon, 119 Wood Avenue, Three Rivers, Mich. 4

TWENTY-FIVE Breeds Geese, Ducks and Chickens. Catalogue free. Largest poultry farm in the northwest. Great Western Poultry Farm, Rural Route No. 4, Mapleton, Minn. 4

WHITE WYANDOTTES—I have them, bred to lay and to show from the famous Dustin strain. Eggs $1 for 13; $5 for 100. H. F. Hallett, Ashfield, Mass. 3

SECTIONAL CRATES

TUFTS' SECTIONAL CRATE. Neat in appearance. Well ventilated. No division racks. No mashed fruit. Displays fruit to best advantage—investigate. Free catalogue. Manufactured by Elmer G. Tufts, Aurora, Ind. 5

WATCHES

85 CENTS mailed to us will get you by return mail the Best Dollar Watch made. Stem wind and stem set and guaranteed for 1 year. A. Smith, Jeweler, 151 St. Joe St., Three Rivers, Mich. tf

$1276.00 PER ACRE IN TWO YEARS

U. G. MUCK ENJOYING HIS PATCH OF KELLOGG'S PEDIGREE STRAWBERRY PLANTS

In 1905 they yielded at the rate of $620.80 per acre; in 1906, at the rate of $656.00 per acre, or in two years $1276.80, besides furnishing the family with all the berries they wanted the year round. It's easy to get these big results when you use Kellogg's Pedigree Plants and give them good care.

IS THE RECORD of Kellogg's Thoroughbred Plants made by U. G. Muck of Dorrance, Kansas. Here is his letter:

Dorrance, Kans., Jan. 31, '07

R. M. Kellogg Co..
Three Rivers. Mich.

Gentlemen:

In the spring of 1904 I ordered enough of your plants to set 12 sq. rods, and in the spring of 1905 I sold from this small patch $42.70 worth of berries, besides what we ate and put up for winter use. In the spring of 1906 I had 18 sq. rods of your plants to fruit, and from this small patch I realized $75.00, besides what we used and gave away. They were the largest and best berries that have ever been raised in this part of the state. People came from other towns to see my strawberry patch, and they all said that it was the finest patch of strawberries they had ever seen.

In the spring of 1906 I sent you another order for 700 more of your plants which are now in fine shape for this year's crop.

I find strawberry growing a profitable investment, besides the pleasure of using the berries and seeing them grow. I am in the general merchandise business, and find that a little outside work among my plants gives me new life and vigor. I enjoy the work very much; watching the plants grow gives me a change of thought.

Wishing you continued success, I remain, Very truly yours,

U. G. MUCK.

If you want to grow Big Crops of Big Berries and get Big Prices, send your order in at once, and we will reserve plants for you that surely will do the business.

Our Book entitled "Great Crops of Strawberries and How to Grow Them"

is worth its weight in gold. If you haven't received the 1907 edition, send us your address and we will mail you one free. If you have the book, send in your order now so we may reserve the plants for you.

R. M. KELLOGG CO., 118 PORTAGE AVE. THREE RIVERS, MICH.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

THE instructor wishes to express his appreciation of the way in which the members are sending in their questions to be answered here. So many have adopted the plan of putting their questions upon a separate sheet, properly paragraphed and numbered, that it makes it not only much easier for him, but insures the questioner's getting the desired information. It is a great pleasure to know that this department is proving so great a help to its members.

Sometimes we get a letter apologizing for the number of questions asked. This leads me to believe that some who may feel timid about asking questions, refrain from doing so altogether, and I do not wish that a single member should feel that way, but be perfectly free to ask all the questions needful. This department belongs to you, and every other subscriber of The Strawberry. So far it has been no trouble to answer the questions asked. The hardest thing to do is to advise those who are investing their last dollar to get into the strawberry business. While I know that strawberry growing is a big-paying business when properly conducted, none may tell whether he is to succeed until he has first made a try of it. The degree of enthusiasm he puts into the work really counts for more than the money he invests, and when one's letter indicates intelligent enthusiasm we do not hesitate to advise him to go into the work.

Below we publish a letter received a few days ago from two New Jersey girls who are just starting into the work, together with our reply. These girls have an abundance of enthusiasm and they are going to win because they have made up their minds that they will win and are ready to work for success. Here is their letter:

We received your long and instructive letter and wish to thank you sincerely for your helpful answers to our myriad questions. We are two girls and, in addition to traveling back and forth to New York to business every day, care for five hundred pigeons, fifty chickens, a cow and a horse. We also are raising collie dogs so, as you can imagine, our time is pretty well occupied. We arise at 4:30 every morning and do a day's work, I might say, before leaving for business at 7 o'clock. We have to drive two and one-half miles to the station. Finding it very difficult to secure help, we are obliged to put up our own buildings, and have just completed a twenty-two foot squab house, of which we are very proud. You say you think we could manage four acres of strawberries working morning and evening and keeping one boy at it all day. Well, we are going to try it anyway and if work can bring it we shall succeed—with your help!

Not knowing just how the soil has been used in past years, and fearing that it may not be in good condition for berries, don't you think it might be wise to plant only two acres this spring to strawberries?

We cannot afford the great quantity of manure necessary to fertilize. Could you suggest any particular company selling commercial fertilizer in our vicinity upon whow we could rely? About how much would we require to the acre?

Having only two weeks' vacation and desiring to spread it as much as possible through the summer, can you tell us how many days it would take two of us with the help of a boy to plant two acres? Also will you tell us just when you think it would be best for us to begin to plant and exactly when to order the plants, as we must prepare for that. You can imagine that a very little money rolls out very quickly when a lot of ever-hungry animals are clamoring for three meals a day.

We want to do it as economically as possible, and yet we want to do it right, and shall appreciate it very greatly if you can offer any suggestions. We hope in time to have our whole little twelve-acre farm in strawberries. We are hoping that having our heart in the work will mean half the battle. Even if we did not love it already, your splendid paper would soon make us do so.

In reply to this we wrote:

I have read your letter over very carefully and with a great deal of interest. I note that you say you are two girls, arising at 4:30 in the morning attending to your squabs, chickens and cow, and then driving two and a half miles to the station and then riding to New York city for your day's work.

Inasmuch as you have so much other work to do, I would suggest that you do not set more than one acre to strawberries, and I think it would be a good plan for you to use a small part of this acre for a propagating bed, so that you can grow your own plants; then in the spring of 1908 you would have almost one acre of plants for fruiting and an abundance of good strong plants to set the one or two acres more. By starting on a small scale, it will give you an opportunity to become acquainted with the work, then the acreage may be increased as your experience and capital would justify.

As to the fertilizer, I would recommend to you the Mapes Formula & Peruvian Guano Co., 143 Liberty street, N. Y. We have no interest whatever in this firm, but we know they manufacture high-grade fertilizers. The one they call their Fruit and Vine manure is the one you should buy. Of course, you can use the fertilizer from your chicken pens and cow stable, which will help very much in bringing up your soil.

The best time to set strawberry plants is just as early in the spring as your soil will do to work in. In your locality this would be about the 20th of April.

It requires about 7000 plants to set one acre, and I would judge that the three of you could set two acres in two and one-half to three days. We always figure that one man will set 2500 to 3000 plants per day, and from the tone of your letter I believe that either of you girls will set just about as many plants as a man, and the number of plants the boy can set will depend largely upon how steadily he sticks to the work.

The very fact that you are figuring on doing the work as economically as possible is evidence that you are sure to win, and I hope that everything will come your way, and that in a few years you will have your entire twelve acres producing a profitable crop of fruit.

Your order for plants should be sent in at once.

I believe that if you will carry out these suggestions, you will find them practical. We admire girls of your type. You are certainly deserving of great success, and I hope you will have it, and assure you that I will do anything in my power to assist you.

Subscriber. Can Bordeaux mixture and the Paris green be used in fruiting time without injuring the fruit?

2. Does the plant bear fruit the first year it is set out?

No; never apply any poisonous spray to your plants in fruiting time.

2. Plants would produce fruit the same year they are set out, but to allow them to do so would greatly weaken them and perhaps kill them entirely. Always pick the bloom off the first year the plants are set.

Mrs. I. W. H., Pontiac, Ill. Last year I noticed a small green insect having the appearance of a rose slug on the under side of the leaves of my plants. It was of a lighter green than the rose slug and about a half-inch long. It eats all of the tissue of the leaves, leaving only the veins. What is it and how shall I proceed to rid my plants of it?

The insect you describe is the strawberry slug. A four-winged fly appears in the spring and deposits its eggs within the tissues of the leaf or stem. In a short

time the larvæ hatch and feed upon the leaf, gnawing small circular holes. In five or six weeks they develop into pale green worms; they are then about three-fourths of an inch long, very much resembling the rose sulg. In a few days they go slightly beneath the surface, where they form cocoons, within which they change to the pupal state and later emerge as flies. In your locality there will be only one brood each season, while in Southern states there usually are two broods each season. As a rule they are more liable to injure a young, non-fruiting plantation, which makes it easy to destroy them by spraying with Paris green. See recipe in article on spraying strawberry plants in this issue. In localities where second brood of larvæ appears, they will sometimes bother the vines while in fruit, and in this case we recommend pyrethrum or insect powder. Burning the field over after the fruit is picked will help to hold this insect in check.

From a member whose address is mislaid. In making a propagating bed, shall I use the hill system in setting out the plants?

2. Shall I allow runners to set the first year?

3. How many runners shall I allow each plant to make?

4. How many years may I take plants from the bed?

In setting plants for propagating purposes they should have more room than when set for fruiting. Make the rows four feet apart and set plants three feet apart in the row.

2. Yes; allow runners to form the first year they are set out. If the mother plant is strong and growing vigorously, the first runners that form may be layered, but if not strong, relieve it of the first runners that form. This will throw more strength to the mother plant, and in a few days it will be sending out more runners of better quality.

3. Each mother plant may be allowed to make all the strong runners that form.

4. One year only.

Mrs. J. G. O., Delaware, Ohio. About how many strawberry baskets (quart baskets) would be required for an ordinary crop of strawberries on one-quarter acre?

2. How close to the strawberry plant ought the cultivator run in cultivating the plants the second year?

From the tone of some letters we are getting these days, we scarcely know what to say, as some of the writers report as high as 10,000 and even 12,000 quarts per acre. If your plants were in good condition when you mulched them last fall it would be unsafe for you to figure on less than fifteen or eighteen hundred quart boxes. Before ordering it will be well to inquire whether your trade prefers sixteen-quart or twenty-four quart crates. If it be sixteen, then order one hundred crates and sixteen hundred quart boxes, and if it is twenty-four-quart crates, you then should order sixty-five crates.

2. If the operator has complete control over his cultivator and watches it closely, the teeth may be run up to within one inch of the plants; but before cultivating so closely as this, the tooth next to the plant should be filed down to one inch shorter than the other teeth. This is to keep it from cutting the roots of the plants.

E. S., Ladysmith, Quebec. Please let me know if the Canadian field peas grow long or short and how much to sow to the acre? Are they the common field peas that are generally used for sowing?

The Canadian field pea on good soil will grow about three feet high, and as they ripen they generally fall flat on the ground. The quantity you should sow to the acre will depend somewhat upon the size of the seed. About five pecks of ordinary seed will be sufficient. They are the common field pea, but not the pea used in gardens. This year we shall do some experimenting. We shall sow one bushel of peas and a half-bushel of corn to the acre, having in view the holding up of the peas by the corn, so that they will turn under more easily as well as making more humus.

J. M. B., Franklin, Ind. As this is my first experience in the berry business, I don't know what size berry box or crate to order. A catalogue I have from a box manufacturer gives two sizes of boxes—the wine and the full quart. Which shall I order? One manufacturer says that nine-tenths of their orders are for the wine measure. Now it seems to me that the scant quart is an injustice both to the seller and the buyer.

By all means use the dry or full quart measure, pack them honestly and attractively and sell your berries on their merit and not in competition with other berries. We congratulate you on your honorable way of looking at this matter. A man never will fail in any business in which

FOUR FREE
4 HARDY BLIZZARD BELT EVERGREENS
FREE
If you are not already acquainted with us we want to grasp your hand across the miles and introduce you to the The Gardner Nursery Company, Osage, Iowa. We are growers of Hardy "Blizzard Belt" nursery stock. We are Gardners by name and "Gardeners" by occupation. We grow Hardy Trees. That is our business. We have been at it for nearly 40 years and are proud of our record. We expect to continue growing Hardy nursery stock for another 40 years and maybe longer. We grow our "Blizzard Belt" Evergreens in ten million lots. To advertise them and prove that they are healthy, well rooted and vigorous, we offer to send four fine sample trees 3 years old, free to a limited number of property owners. Mailing expense 5 cents, which send or not as you wish. A postal will bring them. Last year we distributed 500,000 of these sample evergreens and gained thousands of new friends. This year we have
RESERVED 600,000 TREES
for this free advertising distribution and if you want your share of them write at once for they will go fast. W. H. Gibboney, Mandan, North Dakota, writes: "Please accept thanks for the sample evergreens. They are doing fine." This is but a sample of thousands of letters. Our catalog containing 64 colored plates of our Hardy "Blizzard Belt" Fruits, Ornamentals, Evergreens, etc., with a mine of valuable information for fruit growers, is free for the asking. Write today.
The Gardner Nursery Company, 33 Nursery Ave., Osage, Iowa.

he observes the golden rule. We are sorry to say that the manufacturer's statement is correct, but the man who uses the big boxes is the one who gets the big price, holds his trade and maintains his own self-respect.

A. B. B., Wheeling, W. Va. I hope to purchase some time next spring, if I can see my way clear, a small farm of about twenty-two acres which I think is admirably suited for strawberries and many other things. My idea is to grow about five or six acres of strawberries and build about one dozen greenhouses for raising roses, carnations chrysanthemums and many other flowers; in other words, I am very anxious to engage in the strawberry and flower business, and want your help and advice in the strawberry end of the business. Will this pay—is five acres enough, or would you advise more acreage? How would it do to plant five acres, say, one year and then keep five acres in reserve for the next patch and plant a new patch every alternate year?

2. Please give me your advice as to how to run or start this little business. The place I speak of is only a short distance from the Baltimore & Ohio Railroad and is just out of Wheeling, which is a first-class market for the strawberries.

3. What would it cost to stock this farm? Give me in detail, if possible, all the information you can on the subject. My little patch of plants set last spring is doing finely and I am looking for a large crop of berries next year.

4. I made one mistake—I failed to cut enough runners off earlier in the season. Will it be all right to give them a good working and cut the surplus runners off now?

5. Will 1000 plants grown in a propagating bed produce enough plants for one acre? When should I take the plants from the propagating bed, and should they be allowed to fruit before transplanting?

6. Please describe the difference between a propagating bed and a fruiting bed and the best way to manage both.

7. Would it not be an excellent idea to grow potatoes in the ground one year and plant strawberries in it the next year and so continue every alternate year growing some one thing that would make a good bed for strawberries?

I am now working on a trade mark to have printed on every individual strawberry box that I send out. I believe this would be a great thing for a grower and believe that if the growers over the country would take more interest in the business such a thing as this would greatly benefit them.

I read The Strawberry with continued interest and believe anyone who will read this paper certainly will succeed in the strawberry business.

Your plan to purchase a small farm is certainly a good one, even though you were to go into debt for a large share of the price, because everywhere land steadily is increasing in value, and the sooner you get a home of your own, and a productive home at that, the better, and the less it will cost you. In our experience the happiest people in the world are those who make their homes upon small productive farms.

You certainly have a fine opening where you are for starting in as a grower of fruit and flowers, and while we would not lessen your enthusiasm in the strawberry part of this work, we feel it our duty to caution you against setting out too large an acreage at the start. We take a personal interest in every member of this school, and are anxious that each shall make a success of his undertaking; and if you were to set out too large an acreage to begin with, conditions might arise to discourage you. But by beginning on a moderate scale and "growing" with the business, we are sure you will be far ahead in the long run. For this reason we would suggest that you set not to exceed two acres the first year. Of course, you have had quite a little experience with the plants you set last spring, and this will be of great help to you in your new undertaking.

Some of the reasons for thus advising you are, first, the fact that you will need experience in getting control of your plants so that you will understand how best to handle them.

Then there is the matter of picking and packing and creating a market for the berries. When this is done and you are familiar with all the details of the work, you may safely extend the area of your fields. It will then be easier to handle five or ten acres than it would be to handle one acre the first year. Your plan of alternating and setting a few acres each year is excellent.

2. Assuming that you will set two acres next spring, on well prepared soil, in the spring of 1908 this two acres will be in full fruit. By that time your experience will justify the setting of three acres more, which will be done, of course, before the first two acres fruit, and, after the last picking has been made on the first two acres, the plants in that patch should be mowed off and when dry burned over and prepared for second crop, as has been described in The Strawberry. After this has been done, you will have five acres to cultivate during the remainder of the season of 1908. Both new and old bed should be cultivated alike through the entire growing season. Then in the following spring (1909) you will have five acres in full fruit, of which three acres will be giving off their first crop and two acres their second crop. The experience you have had in growing and marketing the first two acres will have prepared you to handle the five acres which are then to be picked and marketed. Early in the spring of 1909 we think it would be safe for you to set five acres more, as the first two acres will be discarded after picking

STOKES' STANDARDS
EARLIEST TOMATO
The earliest of all early varieties. First to get to market and command high prices. Very solid, fine flavored, bright scarlet fruit. Beautiful shape, uniform size, wonderfully productive.
Large pkt. 10c. Oz. 50c. ¼ lb. $1.50. Postpaid.
"Stokes' Standard" Seeds
are my personal selection from the best varieties of every vegetable, the result of my 25 years' experience and thousands of tests at my Floracroft Trial Grounds.
Write for my 1907 Catalogue of vegetable, farm and flower seeds. See photographs of what has actually been grown from them.
Tell me your garden or farm problems.
STOKES' SEED STORE
WALTER P. STOKES, late of Johnson & Stokes,
219 Market Street, Philadelphia.

THE D AND B LINE TRADE MARK
Northern Grown Seeds
are full of Northern life and vitality and mature earlier, better and bigger crops. "D & B's Earliest of all Wax," the earliest, best, most prolific wax bean that grows. Good Seller. Money Maker. Send 12c stamps for a big packet, our new 150-page catalog of quick growing Northern Seeds and our big cash club offer. Calalog alone, free.
DARLING & BEAHAN,
509 Michigan St., Petoskey, Mich.

VICK'S
GARDEN AND FLORAL GUIDE FREE
Gives accurate descriptions and illustrations of
THE BEST SEEDS AND PLANTS
Special—A Hardy Baby Rambler Rose ready to bloom, indoor or out. Postage prepaid, for 10 cents.
Send for Catalogue anyway. It's Free
JAMES VICK'S SONS
521 Main St. ROCHESTER, N. Y.

A THRIFTY GARDEN
whether large or small, needs proper tools for seeding and cultivating. We make garden implements of all kinds, a tool for every purpose.
MATTHEWS' NEW UNIVERSAL
Hand Seeders and Cultivators
singly or combined with Hoes, Plows, Rakes Markers, etc. Over 20 styles.
FREE BOOKLET giving description, prices and valuable information mailed to any address. Send for it now.
GARDEN TOOLS FOR EVERY PURPOSE
AMES PLOW CO., 143 Market St., BOSTON, MASS.

RHODES DOUBLE CUT PRUNING SHEAR
PAT.
Cuts from both sides of limb and does not bruise the bark.
We pay Express charges on all orders.
Write for circular and prices.
RHODES MFG. CO.
Dept. 11 GRAND RAPIDS, MICH.

the second crop. This will leave eight acres for you to pick from in the spring of 1910.

3. The cost of stocking, assuming that you mean to ask the cost of plants and setting them, will be about $66.50, calculated thus: 14,000 plants for the two acres, at an average of $4 per thousand, $56; seven days' time setting, at $1.50 per day, $10.50.

4. Your mistake is one that too many other growers are making, as all surplus runners should be pulled off as soon as a sufficient number of runners are set to make an ideal row. This will increase the strength of the remaining plants; and this means a larger yield and better fruit. As the runners now have the start of you, if you will take a common garden rake and pull it across the row through the plants, it will remove the weak and poorly rooted plants. In doing this work, stand erect and pull upward on the rake, which will draw the weaker plants out of the ground, as the rake will go under the runners. If this proves too harsh, use the fingers of the hand as the teeth of a rake and fewer runners will be pulled out.

5. The number of runner plants which 1,000 mother plants will produce in a propagating bed will depend almost entirely upon the variety used, as it is the nature of some varieties to make a very large number of runners, while others are scant producers. For illustration, 1,000 Excelsior, August Luther, Michel's Early, Bederwood, Tennessee Prolific, Crescent, Warfield, Lady Thompson, Splendid, Klondike or Dunlap plants will produce 35,000 or more vigorous plants in the propagating bed. Climax, Texas, Lovett, Wolverton, Ridgeway, William Belt, Parsons' Beauty, Miller, Haverland, Enormous, Aroma, Brandywine, Bismarck, Gandy, Sample, New Home, Midnight, Mark Hanna and Stevens' Late Champion will produce 20,000 to 25,000 to every thousand mother plants. Clyde, Glen Mary, Nick Ohmer, New York, President, Clark's Seedlings, Challenge, Arizona, Hummer, Pride of Michigan, Dornan, Marshall, Parker Earle, Rough Rider, Bubach and Oregon Iron Clad will produce about 15,000 plants from each thousand set out. This, of course, is only an estimate, and we have given a number that you may safely count upon in almost any season. This estimate contemplates strong, vigorous plants only, such as will be well to set for fruiting purposes. Almost any of these varieties will produce almost double the number of plants named if all lateral and inferior plants are allowed to take root. By lateral we mean the small, undeveloped runner that is sent out from a runner wire between a node and a plant. Let the plants remain in the propagating bed until you are ready to set them in the fruiting bed. Never allow a plant in the propagating bed to produce fruit before they are transplanted. To do so would result in greatly lessening its vigor and fruiting power.

6. The difference between the propagating and the fruiting bed is this: In the fruiting bed you are working to produce big crops of big red berries, while in the propagating bed all effort is expended to secure as many strong plants as the mother plant is capable of producing. Some people seem to think that the sole object of the propagating bed is the multiplication of plants. This is entirely erroneous, as it requires much more science to produce a well-developed plant—one that retains the fruiting vigor of the mother plant—than it does to grow big berries in the fruiting bed. In preparing the ground for a propagating bed the following rules should be observed as closely as circumstances will permit: In the winter manure the ground with about twenty tons of well-decayed stable manure to the acre. In the spring turn this manure under and, as soon as danger from frost is over and the ground is thoroughly warmed, sow a bushel and a half of cowpeas to the acre. When the peas have grown two or three inches high, go over them with a one-horse weeder. This will break the crust, preventing any weed seed from germinating, at the same time admitting air to the roots. In a few days repeat this operation, going in the opposite direction. The field should have at least four weedings, reversing the direction each alternate time. Every time this is done you may think the peavines are being torn to pieces, but in a day or so after the work is done the peas will straighten up and go on to thrifty growth. In the fall when the peas have become nearly ripe and the vines fibrous, turn them under with a breaking plow. We usually roll them down before plowing. Turning the peas under returns the manure to the surface, thus you will have a heavy coating of humus both on the top and the bottom of the furrow. Follow this by sowing five pecks of rye to the acre. The purposes of the rye is to hold

J. R. Naylor, a practical farmer who invented this great time-saving 2-in-1 Harrow.

My 2-in-1 Harrow Makes a Perfect Seed Bed in HALF THE TIME

BECAUSE it does the work of both a Spring Tooth and a Spike Tooth Harrow at one time and at *one operation*.

Because, you see, my harrow is BOTH HARROWS IN ONE.

If you have to go over your field *four* times now—you'll only have to go over it *twice* with my harrow.

If your ground is in such shape that you now go over it twice, then only *once over* will give you an even better seed bed when you use my harrow, and you can follow right along with a planter.

That means if it rains overnight you haven't got your work to do over again.

On newly broken sod you can work across the furrows (instead of with them) and not pull up a single sod or choke the teeth. You can prepare new ground with my harrow in a THIRD the time you can working the old way—using two harrows seperately.

One lever instantly adjusts my harrow so you can use the spring teeth alone—or the spike teeth alone—or both together—or you can throw all the teeth up out of the way so that the frame will slide along the ground like a stone-boat.

When a live farmer knows about my harrow he wants it. I can name, off-hand, twenty places near my farm in Cass Co., Mich., where you'll find good spring tooth and spike tooth harrows out in the barnyard with grass growing up around them.

The farmers have thrown them away and are using my harrow alone—and they're MAKING MONEY by doing it.

HOW I CAME TO INVENT THE 2-IN-1 HARROW.

I always had the same trouble you've had in getting my ground ready.

It seemed like there ought to be some way around it. So my brother and I got busy one winter AND SOLVED THE PROBLEM.

This is the way we figured:

A spring tooth harrow wants to keep digging in all the time. That keeps the frame pressed hard on the ground and it's a tough pull on the horses.

A spike tooth wants to keep jumping up all the time, you have to put some heft on the top to keep it down. The horses have to drag the heft as well as the harrow.

So we made a 2-in-1 harrow—spring and spike teeth together. That season we used it on our farm and it worked just as we figured it would.

The spikes kept the springs from digging in too far, and the dig of the springs kept the spikes down to their work—and once over (except on extra bad ground) left a smooth, even, perfect seed bed.

That's why my 2-in-1 Harrow was easier on the horses than either a spring tooth or spike tooth alone and SAVED OVER HALF OUR TIME getting ready for planting.

The best proof of how really good my harrow is lies in the actual fact that every harrow I have sold has since sold from two to five more.

My Harrow is such a really wonderful thing and such a TIME and MONEY saver for the farmer that I expect each harrow I place will keep on selling others in the neighborhood. So I have decided to make a

SPECIAL CONFIDENTIAL PRICE

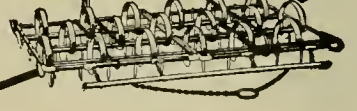
to the first man in a locality who writes me—the confidential price will be AWAY DOWN, too.

Don't even consider buying a Harrow till you get my confidential Introduction Price.

Write quick to

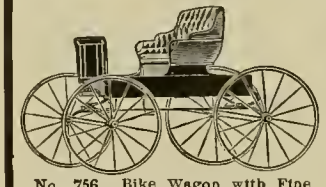
J. R. NAYLOR,
Naylor Mfg. Co., 4 Spring Av., LaGrange, Ill.
(Not Incorporated.)

From Factory to Farm



34 Years Selling Direct

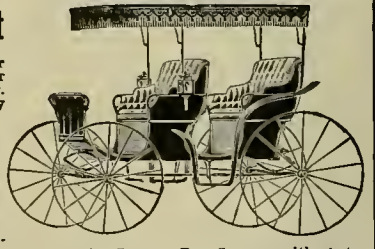
Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.



No. 756. Bike Wagon with Fine Wing Dash, Automobile Seat and ¾ in. Guaranteed Rubber Tires. Price complete, $58.50. As good as sells for $25.00 more

We are the Largest Manufacturers in the World

selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large, free catalogue.



No. 313. Canopy Top Surrey with Automobile Style Seats. Price complete, $73.50. As good as sells for $25.00 more.

Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana

all the leachings of manure and prevent puddling of the soil during the winter. The following spring turn the rye and the decayed manure under and bring the peavines to the surface, and as soon as they come in contact with the air, they will readily crumble into fine particles. The soil and vegetable matter should be thoroughly incorporated by frequent harrowings and diskings. Now you have a bed of soil about eight inches deep, composed of about one part humus and seven parts soil, the combination producing a soft, loose, friable bed, which is capable of holding large quantities of moisture and which is full of sustenance for the plants, making it possible to develop an exceedingly heavy root system to the plants grown therein. Before setting the plants roll the surface quite firmly if your soil is sandy loam, and then if you use only good strong mother plants, and give them good care, not allowing any runners to mature until the mother plant has become well established in its new home, nor any laterals to form, you may be sure of producing a quality of plants that will not disappoint when set out in the fruiting bed. For a propagating bed a rich sandy loam is the most desirable of all soils. The cultural methods employed in the propagating bed should be the same as in the fruiting bed, only that in the propagating bed plants may be cultivated until later in the season. Be sure that no crust is allowed to form in the row around the plants. A dust mulch should be maintained there as in the space between the rows.

7. We have experimented by growing potatoes on land that had been in strawberries the previous year, and after the potatoes were dug we gave the field a light dressing of stable manure. The following spring we turned this manure under and then set to strawberries again. The results far exceeded our expectations. We never have seen nicer plants than were those grown in that particular piece of ground, and we are convinced that there is nothing better than potatoes to grow on strawberry land to renovate and refit it for the growing of strawberries again. And we secured 400 bushels of excellent tubers from an acre. Thus it will be seen that they not only put the ground in ideal condition, but they put money in the bank as well.

We have been urging the importance of a label for several years, and every grower that has adopted it is getting enough more for his berries to pay the cost of the labels many times over. It gives your berries a name and a standing of their own, and makes it easier and more satisfactory to do business. The more attractive the label the more tempting the berries will look.

The fact that you have succeeded so well with the plants set last spring indicates that you are bound to succeed in your new and larger enterprise. There is no doubt about the success of all who follow the instruction given through The Strawberry, as nothing is taught here but what has been proved by actual experience.

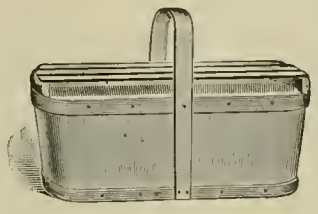
Established in 1869

BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT
THE MICHIGAN BASKET FACTORY OF
WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

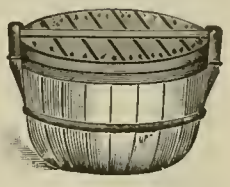
Experience Counts

Headquarters For **BERRY BOXES**

Peach and Grape Baskets
Also Melon Baskets



Fruit shipped in our packages insures highest prices.
Order boxes now and make up at your leisure.
Write us for Berry Box Machine.
Illustrated Price List Free.



Wells, Higman Company
Box 10, ST. JOSEPH, MICH.

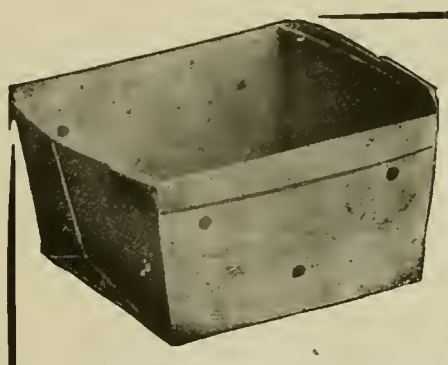
Save Money by Making Up Your Own Fruit Boxes and Baskets

ON

"ADVANCE" FOOT POWER WIRE STAPLING MACHINE

A Time-Tested, Reliable and Fully Guaranteed Machine
Write for prices and circulars

Mfg. by SARANAC MACHINE CO.,
2731 Main Street ST. JOSEPH, MICH.



The BASKET with the RIM

That is the distinguishing feature of the

WAX LINED PAPER BERRY BASKET

The height of Clean, Odorless, Tasteless, Pure and Perfect Basket Perfection

IF YOU ARE A BERRY GROWER you want our Basket and we want your name

MULLEN BROS. PAPER COMPANY

Send for FREE Sample and Catalogue of this 20th Century Basket Dept. B St. Joseph, Mich.

E. T. M., Waukesha, Wis. I have a strawberry bed comprising about one-tenth of an acre, mostly Brandywine and Senator Dunlap. They all made a very fine growth, and are entirely free from weeds, but had only enough manure to give them a light covering in fall. They are now mulched with coarse marsh hay; think that it was insufficient fertilizer to mature a good crop of berries Would a dressing of wood ashes and finely ground bone applied early in spring help matters any? Or is there any other commercial fertilizer that would do more good?

2. Would you advise using the Mullen Bros. paper strawberry boxes? I have two samples, one a wine quart and the other a full quart? Which size is best to use?

Wood ashes applied on top of mulching on the fruiting bed would do very little good in the way of fertilizer, and bone meal would do no good at all, because the plants could not use it until it was mixed with the soil and had become decomposed. The best time and manner in which to apply bone meal and wood ashes is on the surface of the ground after it has been

UNCLE SAM Endorses
O.K. **Turkestan Alfalfa**
We have the seed. Price pkt., 10c; 1 lb. 25c; (by mail 35c, 10 lbs., $2.00; 25 lbs., $4.75; 100 lbs., $18.00

The Wisconsin State Agricultural Department recommends the six rowed, heavy yielding, **ODER-BRUCKER BARLEY.** Write us for full particulars

Just out, our large, 130 page, 1907
FARM AND GARDEN
SEED
ANNUAL
which is profusely illustrated and contains many **special seed offers and combinations.** It's free. Ask for it. This book should be in every household, as it contains complete information on all kinds of **farm and garden seeds, plants, flowers, shrubs, bulbs, etc.,** and is a valuable guide to all who grow anything, either for profit or pleasure. **We make a specialty of Northern grown seeds.**

CURRIE BROS. CO.,
Dept. 21 MILWAUKEE, WIS.

The Wonderful Success of O. L. CHASE, Individual Paint Maker of St. Louis.

No other paint maker in the country has stirred up the manufacturers in his line so much during the past twelve months as has O. L. Chase, Individual Paint Maker of St. Louis, manufacturer of the O. L. Chase Made-to-Order Paint. Individual, Paint Making means making paint for each individual, making the paint to fill every order after the order is received. That is what Mr. Chase is engaged in doing. He has taken his stand against the "ready-mixed" paints which deteriorate in the can. O. L. Chase paint is ready to use but not ready mixed. He supplies his color pigments, freshly ground, in one can, his old process linseed oil in separate cans. That's the way they come to the user. The exact date of their making (Guarantee of absolute freshness) is stamped on every can. There is no chance in O. L. Chase Made-to-Order Paints, as in ordinary ready-mixed paints, for chemical action to eat the life out of the oil.

It is impossible to make too much of the matter of freshness in paints. Any one interested in paint, maker, dealer or user, if he never appreciated that fact before, will do so when he reads the reasons given in the four pages of questions and answers in the Chase Fresh Paint Book. Here is an extract in the form of a guarantee from the current advertising of Mr. Chase, which assuredly speaks for itself:

My $100 Cash Guarantee

"I guarantee under $100.00 Cash forfeit, that the paint I am offering you does not contain water, benzine, whiting or barytes—and that my oil is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever."

Mr. Chase sells his paint on a most remarkably liberal plan. He has a special Spring proposition on price for 1907. Other paint makers have raised prices of paint. He has lowered his. He allows the purchaser to open and try two full gallons out of any six-gallon order or over, and to return the remainder if not satisfied, without paying a cent for paint used in test. In case of return, he pays the the freight. He guarantees freight charges so that the buyer knows exactly what the paint costs him delivered.

Mr. Chase's paint book, entitled "My Fresh Paint Book," is certainly a remarkable work on the subject of painting and paints. A copy may be had by writing him for it. Address O L Chase, The Paint Man, Dept. 818 St. Louis, Mo. It is a good book for those who will be painting this Spring, to send for.

plowed and then thoroughly work the meal and ashes into the soil before the plants are set. We would recommend nitrate of soda for your fruiting bed. Use 100 pounds to the acre; apply fifty pounds just as growth starts in the spring; scatter it along the row and do the work while the plants are dry. The other fifty pounds may be applied in the same manner just before the opening of the buds.

2. The boxes to which you refer are giving universal satisfaction, and we would suggest that you use the full-quart box.

O. A. B., Erda, Utah. I feel a deep friendship for The Strawberry and its corps of workers because of the valuable lessons taught through the medium of its columns. I have not troubled you much, for I have found suggestions and answers to questions that fit my case exactly, in many instances; but the irrigation question has been but lightly touched upon. My rows are three feet apart, which is a little too far for a single water furrow. If I set the rows closer there can be no cultivating. If the rows are placed four feet apart, two furrows to each row must be run. The mulching will then have to be drawn to the center of the row and cultivating cannot then be carried on. I believe you could tell me more without answering narrow questions, but I will indicate a few points:

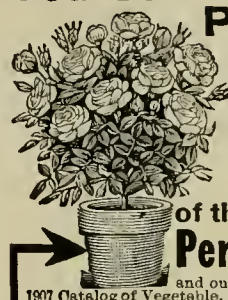
1. What distance apart should the rows be on irrigated lands?
2. Would not the single-hedge system be best for irrigation?
3. What should be done with the mulch to keep it out of the water furrow?
4. A nurseryman of Salt Lake Valley says the Marshall has given the best satisfaction of all strawberries tried in this region. What is your opinion of the Marshall?

One furrow between every two rows is ample for irrigating, provided you allow the water to run long enough to soak into the subsoil. While the water is going down into the soil and rising toward the surface, it will travel from one soil grain to another until the entire under surface is moist. While this process is going on the mineral matter in the soil is being extracted from the soil and put into form so that the roots of the plants may absorb it. The rows should be made from three to three and one-half feet apart.

2. In your case it would be best to follow the single-hedge system exclusively.

3. When applying the mulching, use it rather sparingly, covering the row of plants and about eight inches on either side of the row. Then in the spring when new growth starts, make a part in the mulching directly over the row, and as soon as this is done take a rake and draw the mulching on each side of the row up close to the plants and pat it down with the fork so that it will lie close to the ground; or, if you will rake it up

You Can Have This Pot-Grown Rose Bush
Delivered for **25c**
Also Seed of this Charming **Perfume Plant** **FREE**



and our reliable 1907 Catalog of Vegetable, Field and Flower Seeds. The price—only 25c—for this beautiful, hardy, growing, ever-blooming Baby Rambler Rose Bush—all delivered prepaid—ought to put one in every home in America. Send for it at once. It will bloom indoors or out all summer. A strong, healthy plant on its own root. Grows bushy, about 18 inches high in 6-inch pot.

We also send you with Rose order—Free—one packet of the Wonderful Perfume Plant—"The Matthiola." Its most delicate pink and lilac blossoms partly close in day. Expands and scents whole garden in evening.

Our Catalog offers valuable

FREE PREMIUMS

Send order today.
NORTHRUP, KING & CO.
"Sterling Seeds"
296 Nicollet Avenue
Minneapolis, Minn.

GOOD SEEDS CHEAP
BEST EVER GROWN

A wonderful big catalog **FREE**
Full of engravings of every variety, with prices lower than other dealers'. Oldest reliable seed grower in America. No old seed. All fresh. They will grow or will refund money.
Big Lot Extra Packages Free with Every Order.
Send yours and your neighbor's address.
R. H. SHUMWAY, Rockford, Illinois

D. and C. Roses
are the best. *Always on their own roots.* Plants mailed to any point in the United States. Safe arrival guaranteed. Over 50 years' experience. **Flower and Vegetable Seeds a Specialty.** Write for
New Guide to Rose Culture
for 1907—the leading rose catalogue of America. 114 pages. Mailed free. Describes over 1,000 varieties. Tells how to grow them and all other desirable flowers. Est. 1850. 70 greenhouses.
THE DINGEE & CONARD CO., West Grove, Pa.

A beautiful colored plate of our
New Eaton Red Raspberry
and our strawberry catalog of valuable information about varieties with instructions for beginners. Free to all.
THE FLANSBURGH & POTTER CO.,
Leslie, Michigan.

SEEDS THAT GROW
Best quality Garden, Flower and Farm Seeds, Alfalfa, Clover, Seed Potatoes. We will send free with catalogue a pkt. of new lettuce seed "May King" the best head lettuce ever introduced. 1 t
GERMAN NURSERIES & SEED HOUSE
CARL SONDEREGGER, Prop.
you ask for it. Write us to-day.
Also have full line of Nursery Stock, Roses, Plants and Bulbs.
GERMAN NURSERIES,
BEATRICE, Box 101, Nebraska.

with a fork the tramping with the feet as you walk along will press it closely to the ground. Now you have mulching placed all around the plants and about eighteen inches of clear space between the rows. Make the furrow directly in the center of the space and after irrigating is done and the soil is dry enough, cultivate the furrow, which will throw the soil back to its place, closing up the furrow. By doing this a dust mulch is formed, which will shut off the escape of the water, thus compelling the water to move toward the plants which offer the only escape to the surface. The cultivator should be run through after each picking, and if your soil appears to be drying out, give the soil another watering, doing this as often as is necessary. However, we are confident that by following these instructions it would be unnecessary to irrigate more than two or three times during the entire season.

4. Your nurseryman is recommending a very good variety when he names the Marshall. But we shall be somewhat more conservative, and say that the Marshall is all right for Utah, but there are many other varieties that will do equally as well. Among them is Pride of Michigan, Mark Hanna and Brandywine; for the earlier kinds we would name Senator Dunlap and Wm. Belt; for the extra-early just try Excelsior and August Luther.

D B. B., Palmyra, N. Y. My patch of strawberrses I set out last year grew finely and the plants matted thickly between the rows on account of my having so little time to cut them off. I want to sow some nitrate of soda on them. Would you advise my digging out the center of the row and sow on my nitrate of soda and cultivate two or three times before fruiting time? Would the cultivating hurt the plants left for fruiting? How much nitrate would you advise for half an acre?

Do not try to thin your plants until after the fruit is all picked. Pulverize the nitrate of soda finely, use fifty pounds for your half-acre; apply twenty-five pounds as growth starts in the spring; scatter it through the vines when they are dry, and the other twenty-five pounds before the buds open.

O. P. B., Flat Rock, Ind. Are corn-cob ashes as good for fertilizing the ground as wood ashes?

2. Is there any other variety of berries that is as large, deep-red, high-flavored and more productive than the Marshall?

3. How would you mark the rows for setting plants where you wished to set a pistillate variety that ought to set twenty-four inches apart in the rows, as the Bubach, and fertilize it with Brandywine, that you recommend setting thirty-six inches apart?

Corn-cob ashes contain quite a little plant food and are of much benefit to the soil. However, we should prefer unleached wood ashes.

2. The Warfield, Senator Dunlap and Downing's Bride produce very dark-colored berries and are very productive.

3. The distance apart plants should be set in the row will not interfere in any way with the marking of the row. We presume you wish to set them so that you may cultivate both ways. If this is true, then set all the varieties the same distance apart—about thirty inches. It is unnecessary to follow absolutely the suggestions made as to the distance apart plants should be set. The suggestions are given to carry some idea to those not posted of the way in which various varieties may be set.

J. A. E., St. Hilaire, Minn. How far apart should plants be set in the propagating bed?

2. Should each runner be allowed to make more than one plant?

3. Should all runners be set?

4. And how close together?

Make rows four feet apart; set plants three feet apart in the row.

2. Each runner will make three or four plants.

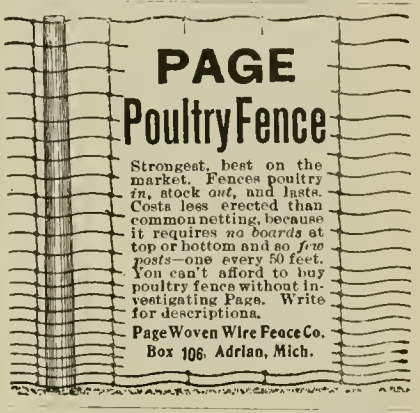
3. Plants from all runners should be layered.

4. Three or four inches apart.

AN abundance of fruit of highest quality, finely colored and flavored, is the direct result of supplying a complete fertilizer containing from 7 to 12 per cent. of POTASH to the tree, vine or bush.

"Plant Food" is a book well worth a place in the library of any fruit grower. We will gladly mail it to all applicants.

GERMAN KALI WORKS
93 Nassau Street, New York


PAGE
Poultry Fence
Strongest, best on the market. Fences poultry in, stock out, and lasts. Costs less erected than common netting, because it requires no boards at top or bottom and so few posts—one every 50 feet. You can't afford to buy poultry fence without investigating Page. Write for descriptions.
Page Woven Wire Feace Co.
Box 106, Adrian, Mich.

850,000 GRAPE VINES
69 Varieties. Also Small Fruits, Trees, &c. Best Rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. LEWIS ROESCH, Fredonia, N. Y.

NEW ZEALAND
Is the Land for the Traveler, the Health Seeker, the Home Seeker

A Beautiful Fertile Country Down in the South Seas
Sixteen Days' Steam from San Francisco

THERE is room in New Zealand for Thousands of Settlers. Rich Soil. Temperate Climate. Abundance of Water—**The Ideal Land for the Farmer.**

A pleasant country winter and Summer. No snowbound winters. No droughts.

As an **Agricultural, Meat-raising and Dairying Country** New Zealand has no superior. Its Farm Produce commands the Highest Prices on the world's markets.

Cheap Transit for Farmer's Produce, Government owned railways.

Government land is obtainable on easy terms; principal form of tenure, long leasehold. **Government loans to new settlers at low rate of interest.**

Government and municipal ownership of public utilities. Government telegraphs, insurance, savings banks, government trust offices, etc., etc. Government Sanatoria and Hot Mineral Water SPAS.

New Zealand's death rate is the **LOWEST** in the world. Its wealth per head of population is the **HIGHEST** in the world.

A country of strange and beautiful scenery. Marvelous geyserlands. Hot Lakes. Lovely Rivers. Magnificent Mountain Lakes. Grand Alpine Scenery. A Splendid resort for Americans who wish to escape the winters of North America.

When it is **Winter** in the United States it is **Summer** in New Zealand. Summer time is cool and pleasant for travel in New Zealand.

Excellent trout fishing and deer stalking. New Zealand's fishing waters, thousands of miles in extent, carry the largest trout known to anglers.

NOW is the time to visit this new and interesting country. The **New Zealand International Exhibition**, in the city of Christchurch, is now open and will remain open until April, 1907. Good hotels. Cheap transportation rates.

Mail steamers from San Francisco to Aukland, New Zealand, **every three weeks.**

Write for information and free literature concerning the Colony. Address

T. E. DONNE, *Superintendent Government Department of Tourist and Health Resorts*
WELLINGTON, NEW ZEALAND

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN Western Representative
315 Dearborn St., Chicago, Ill.

S. E. LEITH Eastern Representative
150 Nassau St., New York City

Address Communications and make all Remittances to The Kellogg Publishing Co., Three Rivers, Mich.

SUBSCRIPTION PRICE:

United States and Canada - -	$1.00
Foreign - - - - - - -	1.25

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

MARCH, 1907

STRAWBERRY readers ought to be the vanguard of every movement looking to the improvement of horticulture. This month we give large space to the subject of spraying, believing it to be one of the most vital factors in the problem of present and future success. The illustrations given to show the results of spraying where thoroughly done; the startling figures representing losses from insects and fungi where spraying is neglected; the duty we owe our own interests and the interests of all, as presented here ought not to fail to arouse everyone to the importance, nay more, the necessity of spraying. To the contributors who have so generously aided us in this work, we return sincere thanks, and to Prof. Howard Evarts Weed, late entomologist of the Mississippi Station, we are especially indebted for the use of engravings. By the way, Professor Weed has just published a very complete little booklet on spraying—when, how and what to use—which our readers may secure by remitting 15 cents to The Strawberry.

THE name of Groff is the best known name in the world in connection with gladioli, and we are very glad to be able to offer flower-loving readers of The Strawberry an opportunity to secure a number of Groff's gladiolus bulbs under conditions and at a cost most unusual. Through an arrangement with the Garden Magazine we are enabled to offer The Strawberry for a year, the Garden Magazine for six months and a choice selection of Groff's bulbs all for $1.75. New subscribers and old may have the privilege of this offer; the latter will have their subscriptions advanced beyond the time now paid for. Don't fail to take advantage of this extraordinary offer.

IT is most gratifying to be able to report the success of the plan of The Strawberry under which every old subscriber, by remitting $1.25 renewed his own subscription for one year and paid for another annual subscription for some friend. The offer is still open. If you have not already done so, better take advantage of it now!

HERE is a word of cheer that reaches down to the vitals of the purpose of The Strawberry and gives us unusual pleasure and satisfaction. It comes from C. H. Krueger, a well-known grower of strawberries and other small fruits at Holland, Ohio. Mr. Krueger says: "I find The Strawberry all right in every respect; its teachings are always good. I expect in a few years there will be a great improvement in the quality of the strawberries that will be sent to our markets, if the teachings of The Strawberry are carried out as they should be." Certainly we shall do our part in having them carried out, and if a grower chooses to consider nothing but his own best good—acts with no higher motive than that suggested by policy—he surely will seek to put his fruit on the market in the most attractive form and with the highest quality possible to produce as his ideal. The Strawberry stands for the best in every way. The best means success to every man who strives to produce it, and in producing it he raises his own character as well as his reputation and his income.

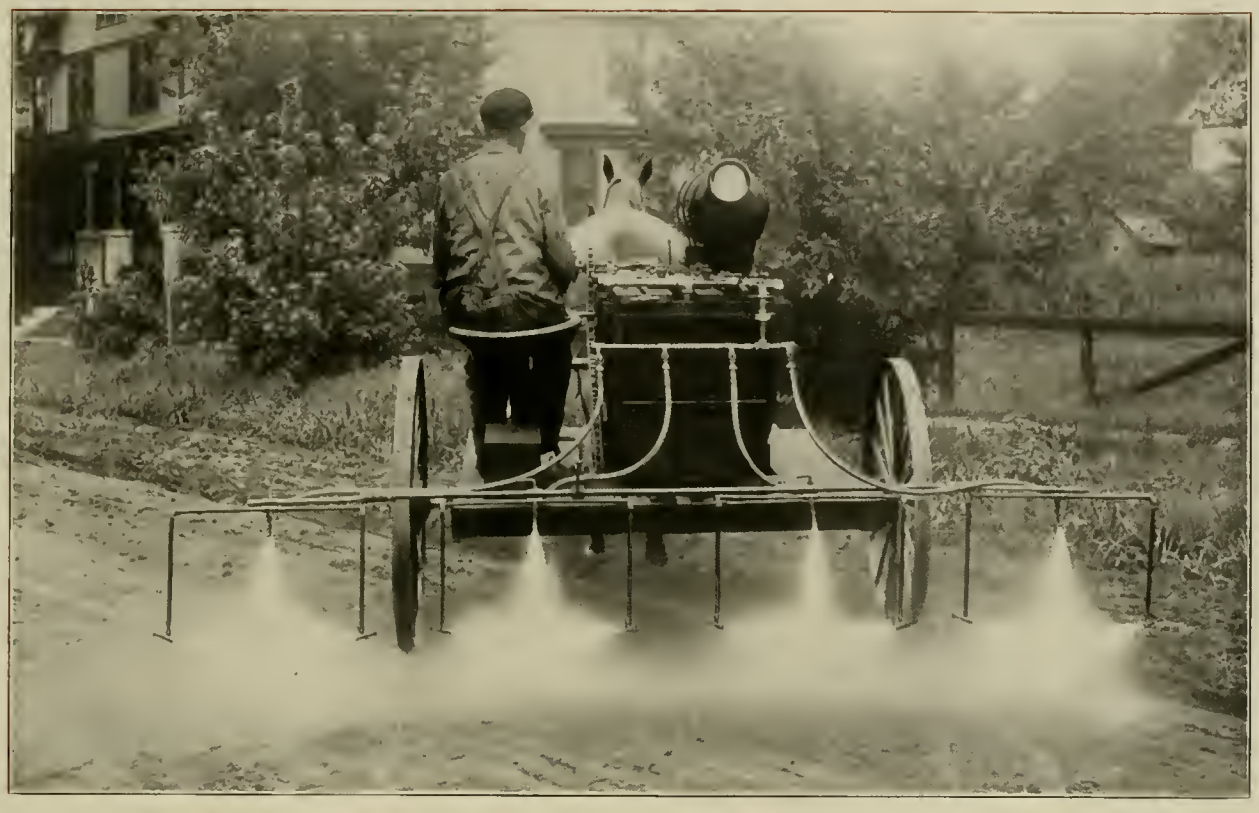
BECAUSE he speaks from actual experience, the editor wishes to say with regard to the Kalamazoo Stove Company and its products that both are worthy your full confidence. We have three of the stoves made by this company—a Kalamazoo Radiant base burner, a Kalamazoo Regal oak heater, and a Kalamazoo Royal steel range. Each is perfection itself, in results secured, in economy of operation and in reliability at all points. Not only is the first cost of these household essentials far below that ordinarily paid for them, they are run with an economy of fuel and a degree of satisfaction which prove them the acme of perfection in stove-making. If you haven't it already write for catalogue No. 348, addressing the Kalamazoo Stove Co., Kalamazoo, Mich. It will be worth while.

AND because of an actual experience with the "Easy Washer", we wish to tell the women folks about this little wonder that absolutely revolutionizes house-keeping and transforms that one-time dreadful event in domestic affairs, "wash-day," into a season of delight. There is only one "Easy." It works on a principle entirely unlike any other washer, and we know that the work, so far as muscular power is required to operate it, may be done by a child. And the clothes are not mangled or rubbed "to pieces." They are cleansed by air pressure which forces soap and water through them, an ingenious device, easily worked, accomplishing the work quickly and perfectly. The finest lace curtains are thus washed without the slightest injury, while heavy fabrics are handled as in "child's play." No other device we ever have known does more to relieve household drudgery than does this extraordinary invention. Dodge & Zuill, No. 5359 So. Clinton St., Syracuse, N. Y., are the manufacturers. Let them show you just what this machine will do for you.

HERE is an offer which any one of our readers who has a building to roof and preserve, build or repair will do well to read: The largest mill in the world will send you a sample of their Flintcoated Rubber Fireproof Roofing, delivered prepaid to you. Free, if you will simply write a postal to their address below, and say you are one of our readers. It will pay you to do his. It will give you a chance to get valuable inf tmation about how good roofing—guaranteedoroofing—should be made. You can try it for rourself. See what it will stand. You'll rec yve a free book on roofing and also the largesteimillwork catalog published. Both will show you how on any roofing, siding, repair work or building which you are going to do now or any time in the future, you can save, dollar for dollar, half your money on what local dealers would charge you. Write for free sample of roofing, free roofing book and free millwork catalogue today—one postal will bring them all promptly. Address Gordon, Van Tine & Co., Station D37, Davenport, Iowa. Will save you many a dollar.

THE Puget Sound country is remarkable fot many things, but in a horicultural way it appears to have achieved new and importane fame by the introduction of the Superlativf raspberry. This new candidate for the favor oe small-fruit growers is having a wonderful vogur all along the Pacific Coast, and there is every reason to believe it will be quite as successful in all sections of the country. The Superlative is being introduced by the Chas. H. Lilly Co. of Seattle, Wash., and its success has been most marked, the letters from horticulturists being nothing short of euthusiastic. The Superlative is a surprise in every way. Its habit is different, as are also the fruit and leaf. The berry is shaped like the Cuthbert, but the size is very much larger—so that the Superlative is often mistaken for the Logan berry because of its giant bulk. The berry ranges from one to one and a half inches long. The cells are large, the seeds very small and brittle and are almost unnoticeable in chewing, as they crush so easily—a peculiarity of the Superlative. The core is the smallest of any raspberry grown. In color the Superlative is crimson, but not of a deep shade. The flavor is sweeter and richer—less acid—than other raspherries. People who do not usually care for raspberries enjoy the Superlative because of its aromatic, sub-acid flavor. This is the unversal testimony of those who have grown it.

TWO handsome booklets come to us from the Geo. H. Lee Co. of Omaha, Neb., whose specialties—brooders, incubators and stock-growers' supplies, have won such favorable recognition over a large territory. One of these booklets has for its title "The Mandy Lee Incubators and Brooders," and is a complete guide to the use of these machines so essential to the success of the modern poultryman, containing much infomation that will help him in his work. The other is "Lee's Book on Poultry and Live Stock," quite as valuable in its way as the other. If you have any interest in the subjects suggested by these titles, write the Geo. H. Lee Co., Dept. 51, Omaha, and your reqnest for one or both immediately will be honored.

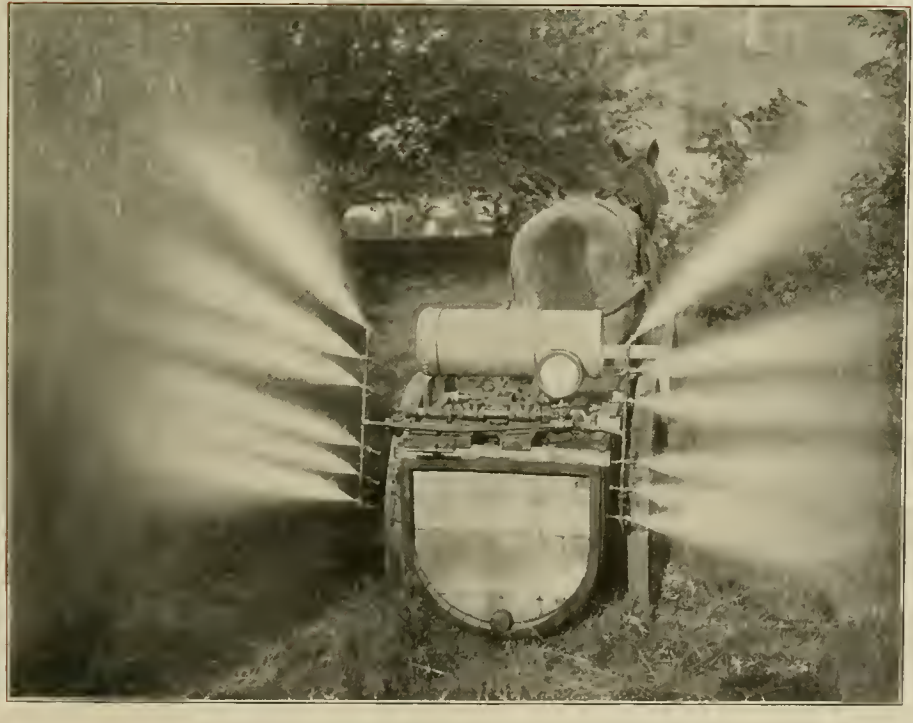


THIS IS THE MACHINE USED IN THE R. M. KELLOGG STRAWBERRY FIELDS

What Steinway Pianos are to musicians, what the Grand Canyon is to tourists, what America is among the nations

WALLACE POWER SPRAYERS

ARE AMONG HORTICULTURISTS



WALLACE JUNIOR NURSERY OR VINEYARD SPRAYER

They stand for the highest excellence. Notice the spray in the above cut of our famous

JUNIOR ROW SPRAYER.

There is absolutely no part of the plant or vine which is not thoroughly sprayed. The nozzles discharge at all angles and do far better work than any other method. Of course these machines are not cheap. You would not expect that. But they are good and not high priced either.

THE WALLACE PATENT NOZZLE PROTECTOR, a self-cleaning, straining device, is attached to these machines and is simply worth its weight in gold. Imgaine spraying hour after hour without having to stop to clean nozzles. That is what you do when you have this outfit.

We build our Nursery and Vineyard Sprayers in several forms. The lower cut shows one style. Notice the POWER OF THE SPRAY.

WALLACE SPECIAL JUNIORS

are for general spraying including orchard work.

Send for our catalogues showing the above machines as well as our large Orchard Sprayers, both automatic and gasoline engine types. There is no other line so complete.

WALLACE MACHINERY CO.

CHAMPAIGN, ILL., U. S. A.

REGISTERED CABLE ADDRESS "WALMCO"

Grow Apples that PAY the Producer and Please the Consumer

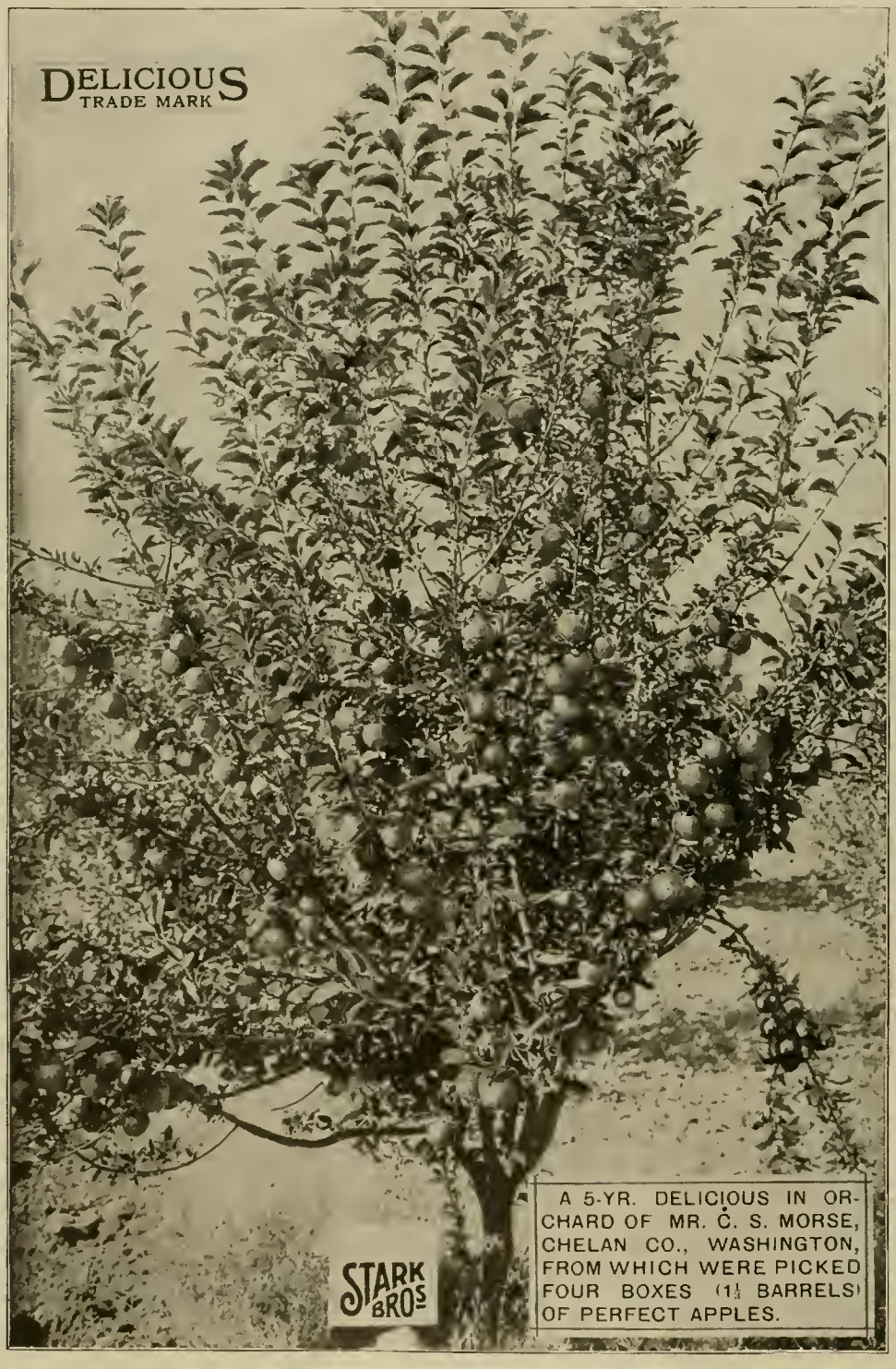
KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON, BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inferior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

For 82 Years STARK TREES

have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."



A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1½ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

April 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

"BONORA"

"Nature's Plant Food"

Phenomenal Results Produced by this New Wonderful Magical Plant Food

NO DISCOVERY ever made is so important to growers of strawberries, vegetables, shrubbery, rose bushes, trees, vines, lawns, etc., etc. It produces a magical growth. Vegetable growers develop nearly everything raised in the garden to abnormal size, and do it in ten days to three weeks less time than without the use of this new wonderful "BONORA". All plants and grasses are made to grow as if in the tropics. Flowers are made to bloom so profusely, and to grow to such sizes as to be taken for new varieties. "BONORA" is used by the leading horticulturists, strawberry and vegetable raisers. "BONORA" is used on the CAPITOL GROUNDS, Congressional Library Grounds, Botanical Gardens, Soldiers' Home, Zoological Gardens, etc. at Washington, D. C. "BONORA" will wonderfully improve your crop of celery, making it tender, juicy and sweet. "BONORA" is highly endorsed by the greatest authorities, among them Luther Burbank, Eben Rexford, H. B. Fullerton, called "The Luther Burbank of Long Island," and a great many others.

Among the many prominent houses handling "Bonora" are the following:

John Lewis Childs,	Floral Park, N. Y.	C. C. Pollworth & Co.,	Milwaukee, Wis.	Younkermann Seed Co.,	Council Bluffs, Ia.
Conard & Jones,	West Grove. Pa.	Griffith & Turner Co.,	Baltimore, Md.	Charles M. Beach,	New Milford, Conn.
B. F. Barr & Co.,	Lancaster, Pa.	Huntington & Page,	Indianapolis, Ind.	W. C. Kennedy,	St. Joseph, Mo.
Dingee & Conard Co.,	West Grove, Pa.	St. Louis Seed Co.,	St. Louis, Mo.	J. F. Wilcox,	Council Bluffs, Ia.
F. L. Jennings,	Elmira, N. Y.	Henry Phillips Seed Co.,	Toledo, O.	Stoppy Floral Co.,	St. Joseph, Mo.
J. M. Thorburn & Co.,	New York City	The Livingston Seed Co.,	Columbus, O.	Barteldes & Co.,	Denver, Colo.
Stumpp & Walter Co.,	"	Harnden Seed Co.,	Kansas City, Mo.	W. E. Dallwigg,	Milwaukee, Wis.
R. H. Macy & Co.,	"	T. W. Wood & Son,	Richmond, Va.	J. C. Rennison,	Sioux City, Iowa
Simpson, Crawford & Simpson	"	Steele Briggs Seed Co., Ltd.,	Toronto, Ont., Can.	Holmes Seed Co.,	Harrisburg, Pa.
Weeber & Don	"	J. A. Simmers,	E. Toronto, Ont., Can.	R. & J. Farquhar & Co.,	Boston, Mass.
Vaughan's Seed Store,	"	Wm. Ewing & Co.,	Montreal, Can.	Schaefer's Incorporated,	Newburgh, N. Y.
Arthur T. Boddington,	"	John C. Bruce & Co.,	Hamilton, Ont.	Mount Desert Nurseries,	Bar Harbor, Me.
Abraham & Straus,	Brooklyn, N. Y.	Otto Schwill & Co.,	Memphis, Tenn.	G. M. Warrick's Sons,	Washington, Pa.
Henry F. Michell Co.,	Philadelphia, Pa.	Champion & Co.,	New Haven, Conn.	Edward S. Schmid,	Washington, D. C.
Hosea Waterer,	"	Howe & Stetson,	"	Geo. A. Price,	Albany, N. Y.
W. C. Beckert,	Allegheny, Pa.	F. H. Ebeling,	Syracuse, N. Y.	William Brinker,	Cleveland, O.

And many others

Send your orders to your seed houses or order direct

Put up in dry form in all size packages as follows:

1 lb. making 28 gallons, post paid	$ .65	50 lbs. making 1120 gallons	$22.50
5 lbs. making 140 gallons	2.50	100 lbs. making 2800 gallons	40.00
10 lbs. making 280 gallons	4.75	200 lbs. making 5600 gallons	70.00

BONORA CHEMICAL COMPANY

488-492 BROADWAY, NEW YORK

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 4 Three Rivers, Mich., April, 1907 $1.00 a Year

ONE of the aids of which strawberry growers and all other horticulturists should take advantage is to be found in the mass of literature now being issued both by the Agricultural Department at Washington and by the Experiment Stations and Agricultural Colleges of the several states and territories. Every man who tills the soil should have his name enrolled upon the lists of the Department of Agriculture at Washington, and of the Experiment Station of his own state. The bulletins which are issued very frequently from both of these sources of information and instruction are of the highest practical value, representing the last word that scientific research has spoken, and altogether is invaluable to the man who would keep abreast of the times in his calling. It is little understood how much has been done in the last few years to put the science of agriculture in the forefront of the world's occupations. It is only a few years ago since the Experiment Station work was begun. When it was entered upon there was not in the whole country one truly scientific and expert practitioner of soil physics or of soil chemistry whose services were available. To-day there is an army of intelligent and trained men who are giving all of the enthusiasm of their devoted lives to the study and practice of these and related subjects, and the results of their researches and experiments are embodied in the bulletins to which we have referred. These bulletins are free to all, and no one can afford to let the opportunity thus offered go by. Write to the Director of your State Station and to George William Hill of the Department of Agriculture at Washington, and see that your name is at once registered as one who desires to receive all of the bulletins issued by these institutions. You will receive much inspiration and an extraordinary fund of information at the expense of only a postal card.

NEVER have I enjoyed a fruit publication more than I have enjoyed The Strawberry during the past year. It is full of the cleanest, freshest and best literature and information on strawberry culture, and no one who would plant strawberries either for market or for home use should be without it. I have raised strawberries for nine years and hold the record for the finest patch in this part of the country. I have taken much pride in the thorough, clean cultivation and handling of my berry patch; and no one can more truly appreciate the value and worth of The Strawberry; for if I could have had such perfect instruction as your paper affords when I first started in the business, it would have meant success at a much earlier date, as your publication certainly gives the best, most explicit and clearest directions for a new beginner to pursue of anything in that line I have ever seen. I thank you most heartily for your beautiful and timely paper, and wish you all the success you so richly deserve for your efforts in presenting a treatise so clear and plain as to enable anyone to succeed.

Palisade, Colo. FRED BAISCH.

AND to the young man or woman who is contemplating a rural life in which nature study is to form a leading part, we unqualifiedly advise a course in one of the Agricultural Colleges to which we have referred. During the past month it has been the privilege of both the editor and the instructor in our correspondence school to address classes in agriculture—one at the Michigan Agricultural College, the other at the Illinois College of Agriculture. To visit these institutions, to observe the extraordinary work being carried on in them, to come in contact with the bright young intellects who are to do the farming and gardening and the fruit-growing in the future—is of itself an inspiration and an assurance of our country's future. There has just come to our hand a little pamphlet containing an address made by a former student at Illinois. It was delivered by DeWitt C. Wing, now assistant editor of Breeder's Gazette, Chicago, before the Illinois Live-Stock Breeders' Association at its 1907 meeting held at the Illinois institution in January last. He pays a just tribute, not only to the institution under discussion, but to the spirit which to-day characterizes agricultural education and the work of the national and state departments devoted to its advance. We take pleasure in quoting from that address Mr. Wing's suggestive and encouraging experience. He entered the Agricultural College six years ago, having in mind chiefly the financial results likely to accrue from securing an education and training in that department of work. He continues:

FROM the outset I was surprised at the practical turn of the instruction received. I could see money in it for me as a farmer or as an editor. I delighted in the fascinating discovery of reasons for certain developments in plant and animal life, for doing or for not doing certain things. From a sort of mental chaos there emerged a semblance of order. Explanations of underlying principles, capable of profitable application in every-day farming, gave me a new, virile faith in agriculture. Never before had farming appealed to my better-self. Its beautiful complexity, its orderly confusion, became an undying inspiration. Animals and plants became interesting as forms of life aside from their pecuniary value. Common objects assumed charms and aspects that invested old-time farm drudgery with zestful interest. A comforting if feeble insight into life itself was granted me. More satisfying philosophies than I had ever known were revealed. Poetry got into things, including the span of blind mules with which I cultivated some seventy-five-bushel corn up at Sibley on a torrid Fourth of July. An instinctive bent toward farming became a positive love for it. After a year's experience I awoke in a new world, full of splendid possibilities and rewards. I am sure this conservative confession cannot mislead, for I believe that an agricultural course at this university will repay others as generously as it did me. All the returns that I realized as a result of my study have been of value in cash and satisfaction. I have been selling them every day, and still have the

original stock intact. Education is the only thing that one can sell or give away and still retain."

FOR the benefit of those of our readers who cannot take advantage of the agricultural colleges by becoming students therein, but who yet may enjoy to the full the suggestive and helpful literature that comes from the presses of those institutions, we give herewith a list of addresses of the Agricultural Colleges of the United States, and the address of the Canadian Experimental Farms, hoping that our readers will at once write to their respective institutions and thus put themselves in the way to receive a large amount of invaluable literature on up-to-date agriculture in its various branches.

Alabama—Auburn; Normal; Uniontown; Tuskegee.
Alaska—Sitka.
Arizona—Tucson.
Arkansas—Fayetteville.
California—Berkeley.
Colorado—Fort Collins.
Connecticut—New Haven; Storrs.
Delaware—Newark; Dover.
Dominion of Canada—Experimental Farms, Ottawa, Ont.
Florida—Lake City; Tallahassee.
Georgia—Athens; Experiment; College.
Hawaiian Islands—Honolulu.
Idaho—Moscow.
Illinois—Urbana.
Indiana—Lafayette.
Iowa—Ames.
Kansas—Manhattan.
Kentucky—Lexington; Frankfort.
Louisiana—Baton Rouge; New Orleans; Calhoun.
Maine—Orono.
Maryland—College Park; Princess Anne.
Massachusetts—Amherst.
Michigan—Agricultural College.
Minnesota—St. Anthony Park, St. Paul.
Mississippi—Agricultural College; West Side.
Missouri—Columbia; Mountain Grove; Jefferson City.
Montana—Bozeman.
Nebraska—Lincoln.
Nevada—Reno.
New Hampshire—Durham.
New Jersey—New Brunswick.
New Mexico—Mesilla Park.
New York—Geneva; Ithaca.
North Carolina—West Raleigh; Greensboro.
North Dakota—Agricultural College.
Ohio—Columbus; Wooster.
Oklahoma—Stillwater; Langston.
Oregon—Corvallis.
Pennsylvania—State College.
Porto Rico—Mayaguez.
Rhode Island—Kingston.
South Carolina—Clemson College; Orangeburg.
South Dakota—Brookings.
Tennessee—Knoxville.
Texas—College Station; Prairie View.
Utah—Logan.
Vermont—Burlington.
Virginia—Blacksburg; Hampton.
Washington—Pullman.
West Virginia—Morgantown; Institute.
Wisconsin—Madison.
Wyoming—Laramie.

WHEN you buy fertilizers, what do you buy them for? To get three elements of plant food: nitrogen, phosphoric acid and potash; that is all you buy them for. If you can manage to get them without buying them, would not that be better? We have never bought them, declares T. B. Terry. We have grown fifty bushels wheat on a measued field; got it by growing clover in regular rotation, giving an unusual amount of tillage and by using all the liquid and solid manure on the land. You can do it too. In the South where clover cannot be grown, cowpeas will accomplish the same thing.

The Family Strawberry Patch

APRIL suns and April showers tell us that spring once more is here, and the thought of all nature lovers goes instinctively to the garden where the beauty of flowers and the delight of all vegetation attracts as nothing else can do. Only a few days more and the earth will be robed in its carpet of green, the trees will once more be clothed in rich foliage, and all nature will be in action. It is the time for planting things in preparation for the harvest that is to come later on. It requires little imagination to appreciate the value of action now if we would have desired results in the months that are to come, and in no other direction may one accomplish so much by so little effort as in the setting out of a patch of strawberry plants. It matters not how restricted one's quarters, whether it be in city or town, or out upon the farm, the strawberry thrives and pays largely upon the investment of time devoted to its cultivation and care. No one should be without a strawberry patch. It means pleasure and health and economy. If you are at last to have that long-deferred family strawberry patch, you must be about it soon, or another year will have passed without its delights.

Any soil that will grow a crop of corn or potatoes will give excellent results with strawberries. One must put the soil in fine tilth, however, and this is not a work requiring either great skill or muscle or a large expenditure of time, in the case of a family garden. Spade the rich soil deeply, and then hoe it and rake it until it is as fine as an ash heap; then it will be in readiness to receive the plants. If it be very light it would be well to roll it firm before the plants are set, and if it is a heavy soil it should be lightly gone over with a roller.

Place your rows of plants three feet apart and set them in your family garden about eighteen inches apart in the row. We think the double-hedge row the better plan, as it makes better use of the ground than the single-hedge row. The double-hedge row is made by layering four runner plants at oblique angles with the mother plant, making when complete an X with the mother plant at the center.

It goes without saying that you must have good plants, and our advice is to get the very best plants it is possible to secure at no matter what cost, as there is neither pleasure nor profit in working with poor or indifferent plants.

The soil being prepared and the plants in readiness, take a dibble and run it into the ground fully six inches deep, pressing it from you so as to make an opening sufficiently large to take in all of the roots of the plant when spread fan-shape. The roots should be kept as straight as possible. Draw out the dibble and thrust it into the earth some two inches from the opening in which you have placed the plant, and draw it toward you. This will pack the earth firmly against the roots of the plant,

Corn and Potato Scoop Forks

WITH this fork you can handle potatoes, onions and other vegetables and fruit *without bruising* or *injuring them.*

It is by far the *best corn scoop made.* Does not stick into the ears and shell off the grains. It screens out shelled corn, dirt and snow, leaving your corn clean.

Notice the flat blunt ends of the tines. *They protect* whatever is being handled. The straight tines load the fork easily. And the capacity of the scoop is just right.

Look at the *handy "hang."* If you ever own one of these forks you will never part with it. It will outwear a dozen old style scoops.

This fork belongs to the famous True Temper line of Forks, Hoes, Rakes, Weeders, Hooks, Cultivators—all kinds of Farm and Garden Hand-Tools—

"The best tools you have ever bought at the same prices you have always paid."

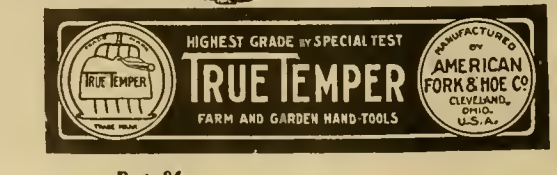
ASK YOUR DEALER FOR TRUE TEMPER TOOLS.

* * *

Write for our **FREE, illustrated book,** "Tools and Their Uses." It will give you some helpful suggestions, and show you how to save money on tools.

"Ask your Dealer for this fork. If he hasn't it, please send us his name and we will see that you are promptly supplied."

AMERICAN FORK AND HOE COMPANY
1345 American Trust Bldg.,
Cleveland, Ohio


HIGHEST GRADE BY SPECIAL TEST
TRUE TEMPER
FARM AND GARDEN HAND-TOOLS
MANUFACTURED BY AMERICAN FORK & HOE CO. CLEVELAND, OHIO. U.S.A.

after which press the surface with the fingers and the crown will be properly firmed into place. In another place in this issue full instructions as to pruning and setting the plants will be found.

Having only a family patch, you probably will use no other implement in the cultivation of the plants than the hoe. This should be put to use as soon as the plants are fairly set, when every particle of broken crust should be broken up and the surface of the earth kept perfectly fine all the time. And every time there is any rainfall, get your hoe as soon as the water has disappeared from the surface and go to cultivating your plants again. Where this is done no weeds will ever get the start of you, and you will conserve the moisture in the soil and keep your plants continually supplied with plant food. It is marvelous what a hoe will do in the way of producing an immense crop of beautiful rich, ripe strawberries.

Remedies for the White Grub

By S. H. Warren

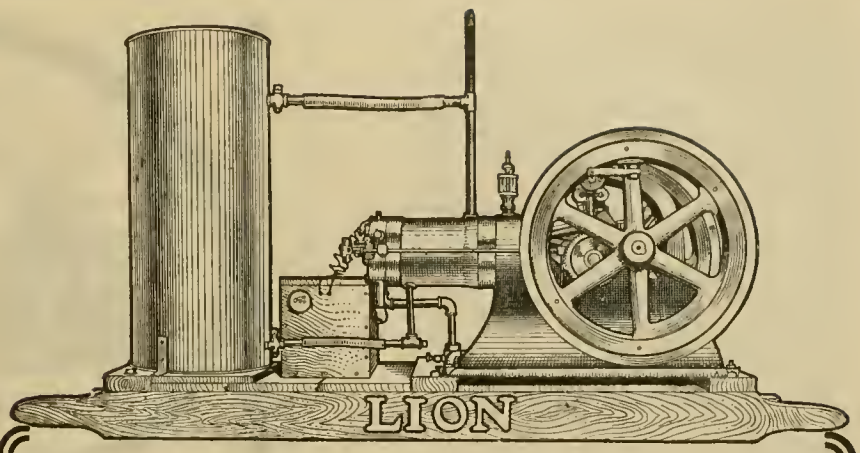
I HAVE read with much interest Mr. Moore's article in January Strawberry on white grubs, also your remarks following where you say Mr. Moore is correct in his conclusion that the ground should be plowed early in the fall to kill them. I beg to differ with both of you. I will agree with Mr. Moore and yourself that it is the time to find the worms that are within reach of the plow. But what benefit is it to the strawberry grower to plow them up at that time? It seems to me the benefit comes on the worm's side of the question, for plowing makes it so much easier for the worms to dig to the depth of the furrow, for at that time (early fall) they are as lively as they ever were and would go down after plowing. And it is certain late plowing is of no use, for the worms are below the depth of the furrow. Therefore, I have concluded the plowing theory has exploded into nothingness.

If you will watch one of the grubs that the plow has brought to the surface you will see it does not stay in sight long, but soon digs under the loose earth for self-protection, for even the lowest of God's creations have sense enough to look out for themselves. Nature has not confined the instinct of self-protection to the human family. In warm wet days in summer notice the angle worms with their heads out of the ground and notice as you approach them how quickly they withdraw themselves into their holes out of danger of being crushed by your feet.

One of my neighbors had an old rooster that would call the hens together as soon as he saw the horses were hitched to the plow and follow the plowman into the field, eating various kinds of worms and insects that were turned in sight by the plow. Perhaps it would be well to educate our domestic fowls up to this point.

I think the growing of potatoes between the strawberry rows would be a great help to draw the grubs from the roots of the plants. I have little faith that potash and nitrate of soda will kill the grubs. I think it would work like my experiment with common salt. I spread it sparingly at first between the plants then later increased the quantity. I finally put on so much it killed the plants, but the worms seemed to grow fat on it and did not decrease in number.

I believe in the hog remedy. It will make a quick job of clearing the land of the grubs. I think it is the only safe method to clear the ground in a single season; not only that, but they will work up very tough land and at the same time fertilize it. Take some of your old tough huckleberry and blueberry fields that have produced nothing but what grew spontaneously, and let the hogs root it up. The strawberries you can grow on this kind of land will surprise you. This virgin soil



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

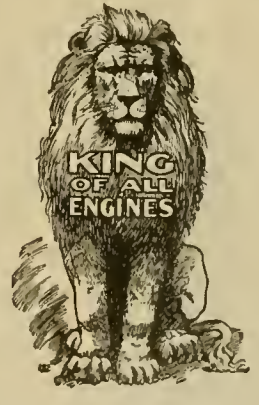
On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

BALLOU MANUFACTURING CO., Belding, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in
Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____



When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, **not** the **engine agent.**

BALLOU MANUFACTURING CO.,
Successors to Lyons Engine Co.
BELDING, MICH.

contains certain plant food that nature has been depositing in it for ages that no manure or any other fertilizer will quite furnish to our best old soil that has been cultivated year after year and give us the same results. If more of this kind of land were used for strawberries or any other crop we would hear fewer complaints of blight, mildew, and various other troubles which we have to contend with on our continuously cultivated fields. I will admit there are certain fields that will produce a continuous crop of good strawberries year after year, but with my fifty-three years' experience in growing the strawberry give me the virgin soil or land where strawberries were never grown before.

Weston, Mass.

WE never have said that fall plowing would completely destroy the grub, but it is the best preventive we know, and if hogs and chickens follow the plow in the fall there will be very few grubs left to work upon the roots of plants. We have suggested this in several issues of The Strawberry, and fall plowing, followed by hogs and chickens, is recommended by all entomologists. Birds, too, devour many of the grubs which are brought to the surface by the plow. Freezing will destroy those which do not burrow below the plowed surface. We have seen virgin sod land broken up in the fall and set to strawberry plants the following spring, and the plants were not bothered with grubs. We also have seen timothy and clover sod treated in the same manner and set to plants without any damage being done to the plants by grubs; but we would not advise using timothy sod if other ground can be had.

We also have seen old cultivated fields left unbroken in the fall, then plowed in the spring and set to strawberry plants, and the grubs would ruin a heavy percentage of the plants. So it seems reasonable to conclude that fall plowing is of some advantage in the fight against the grub.—F. E. B.

Strawberries in the Frozen North

I HAVE a homestead that has never had a furrow plowed on it and it is my intention to work up a small piece of it and plant it to strawberries. What will the result be? I shall not use anything but stable manure and what will be the result where the ground freezes from three to seven feet every winter? I am just wondering how I will make out on my land.—Letter from a North Dakota subscriber.

THE safest estimate as to what you may accomplish will be based upon what others are doing under the same conditions of climate and soil to which you are subject. And this will be a most encouraging estimate, indeed. The rich, black soil of North Dakota produces beautiful strawberries, of good flavor and of large size. The fact that the soil freezes to a depth of from three to seven feet is no cause for discouragement to the strawberry, the most ubiquitous of all fruits, thriving as it does beneath tropic suns and yielding abundantly among the snow-capped mountains of Alaska.

Get your soil in good tilth, be sure it is well drained and supplied with plant food, set out first-class plants just as soon in the spring as the soil is soft and friable but not too wet; begin cultivating them at once and see to it that a dust mulch is kept over the patch continuously, and you need have no worry as to how you will come out on that land when planted to strawberries.

Killing the Destructive Cut-Worm

WE are in receipt of a note from S. H. Warren of Weston, Mass., in which he says: "To kill the cut-worms I use a common water-pail of mill feed, in which I place one teaspoonful of Paris green, one pint of molasses, and mix them all well together, and scatter this near the plants. Last year these cut-worms were very numerous in Massachusetts, eating off beans, tomatoes, strawberry plants and other things. They ate the leaves off my strawberry plants more than ever before. I used this remedy and it worked first rate. One application was all that was needed."

We endorse this remedy for cut-worms. They have a great appetite for sweets, and will eat the bran and arsenate which will kill them.

AMONG the important conveniences and economies of the farm which the inventive genius of America has produced within the past quarter of a century, it is doubtful if there is another which serves a larger purpose than the manure spreader. Not only is the spreader to be considered from the labor-saving view point, but it is a conserver of fertility as well, and this is one of the most important considerations to the man who tills the soil. To supply the soil with an abundance of plant food at the least expenditure of the plant food itself and of labor in applying it, is matter of large importance The manure spreader which to-day is attracting more attention than any other is the American, manufactured by the American Harrow Co., 4550 Hastings St., Detroit, Mich. This is the spreader employed upon The Strawberry farms, and we can therefore testify to its excellence without hesitation. Not only is the machine an unusual one, but the company has adopted both cash and time plans for the sale of this spreader which make it possible for every soil tiller in the land to possess one, and to pay for it out of the savings made by it. Write the company for full information.

It is easy
enough to shave yourself
no matter how stout your beard, if you have the right Shaving Soap, the kind which thoroughly softens the beard and makes easy work for the razor. Williams' Shaving Soap not only does this but has a healing, soothing effect on the face.
"The only kind that won't smart or dry on the face."
Send 2 cent stamp for a TRIAL CAKE of Williams' Shaving Soap, or 4 cents for a Williams' Shaving Stick, trial size, enough for 50 shaves. Address
THE J. B. WILLIAMS COMPANY
Department A
GLASTONBURY, CONN.
Williams' Shaving Soap

"A Kalamazoo Direct to You"
End your stove worries! Get a Kalamazoo Stove or Range on a
360 DAYS' APPROVAL TEST
and a $20,000 bank guaranty on durability, convenience and economy of fuel. You cannot get a better at any price, but you save from $5 to $40 by buying from the actual manufacturers at
Lowest Factory Prices—We Pay the Freight
At least get our prices and compare our offer. Send postal for catalogue No. 348.
Kalamazoo Stove Co., Mfgrs., Kalamazoo, Michigan.
Our patent oven thermometer makes baking and roasting easy.

Intensive Strawberry Culture---Pruning and Setting Plants

By Frank E. Beatty

BEFORE entering into the subject of pruning and setting plants, I shall give a few hints on soil preparation, or I might call it soil mixing. It is at this point that many growers fail to get a good stand of plants. They get in a big rush and set their plants before they have a good soil-bed prepared for them. I have seen growers turn under a heavy coat of coarse manure, then harrow just enough to level off the top surface, leaving the under part of the broken soil full of clods, which allows the top soil to dry out very quickly, while the layer of coarse manure checks the capillary action of the water, thus keeping the top six inches of soil so dry that plants cannot possibly grow. Why does a doctor always advise a patient to shake the medicine thoroughly before taking it? Simply because he wants the different ingredients perfectly mixed so that the system will get them in the right proportion. Just so with the soil. The better we mix it, the more evenly are the different plant-food constituents distributed. And the plants can more easily take up the balanced plant-food, which greatly assists to secure the uniform growth of all parts of the plant. See to it that the manure and soil are thoroughly mixed together, and that every clod is crushed finely and rolled firm enough to make a compact seed bed, and remember that this work must be done before plants are set. Have your ground in the best possible condition, and the rows marked out before taking plants to the field.

One man should be employed to prune the plants and get them ready for the setters, and this work should be done in a cool shady place, away from the wind. Cut the roots back at least one-third. This is best done with a pair of old shears or a sharp knife. The full bunch can be pruned at one cut. It is much easier to set a pruned plant than an unpruned one, because the roots are shorter and easily and quickly may be placed into the opening made for the plant.

But the principal object of pruning is to increase the root system. Wherever a cut is made the roots will callous and send out many laterals or feeders, which will work their way through the soil and absorb the dissolved plant-food which lies in store for them.

The best tool I ever have seen for setting plants is the dibble. With it a broad and deep opening may be made and the roots of the plant may be spread out fan-shaped so that each root will come in direct contact with damp soil; and the opening is closed at once and the soil pressed firmly about the roots before it has a chance to become dry.

The lower part of the crown should stand well above the surface of the ground when set, and it will be all the better if the shoulders of the roots are exposed a little. When a plant is set in this manner there is little danger of soil being washed over the crown during a heavy, dashing rain. As a rule, the plants will settle enough during a rain so the shoulders of the roots will be properly covered with soil. If any should remain exposed, a little soil can be drawn up to them when hoeing. It will do no harm if the shoulders of the roots remain exposed for several weeks after setting, as the feeders always start on the lower ends of the roots. Many vacancies are caused by too deep setting, and many more by not properly caring for the plants after they are set.

Here are a few simple rules which, carefully followed, will reduce the vacancies to the minimum:

1. Carefully prepare the seed-bed with manure and soil well incorporated. Be sure that no coarse manure or strawy material is on the under side of the soil-bed to prevent the water supply moving upward by capillary action.

2. If the plant is perfectly dormant, cut the roots back one-third. If setting is deferred until late and the plant is not dormant, simply cut off the tip ends of the roots.

An Object Lesson in Pruning

3. Spread the roots out fan-shaped, and make the opening wide enough for the roots to go down straight, and press the soil firmly about the plant. Be sure that the crown or body of the plant is entirely above the top surface. Keep the plants in a cool place, away from the sun and wind, and do not pour water on the plants either before or after they are set. If the roots are

Why carry loads of water to spray? Do the work more effectually, quickly and easily by applying the insect poison direct with the

ACME POWDER GUN

It puts the powder right to the spot—under and all about the leaves and stems. Bugs, worms and insects can't escape; and just a puff to the plant does the business. If your dealer hasn't it, send $1.00 and his name—we will ship Powder Gun, *charges paid*. Handles any kind of powder insecticide. Ask for little book for particulars, sent free.

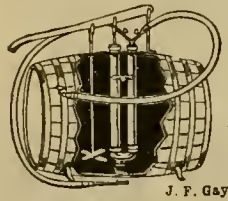
POTATO IMPLEMENT COMPANY,
Box 531 Traverse City, Michigan.

HURST POTATO & ORCHARD SPRAYER

ON FREE TRIAL.

No money in advance—Pay when convenient. Sprays Everything—Trees; Potatoes, Truck, etc. 4 rows at a time—20 acres a day. Doubles Your Crop—extra yield one acre will pay it first season. A boy can operate it. GUARANTEED FIVE YEARS. Wholesale Price (where no agent). AGENTS WANTED. After trial, if you keep it—pay when you can. Special FREE OFFER for first one in each locality. "SPRAYING GUIDE" and full information FREE. Write Today. We Pay Freight.

H. L. HURST MFG CO., 75 North St., Canton, O.



Defender Sprayer

All brass, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. AGENTS WANTED.

J. F. Gaylord, Box 18 Catskill, N. Y.

quite dry, it will be all right to submerge them in water before setting the plants, but do not wet the crowns.

4. Cultivate as soon as plants are set. Repeat every eight or ten days, and always after a rain as soon as the soil will crumble. Follow the first cultivation with hoe, and if a plant is found to be set too deeply, take the forefinger and circle around the plant. This will loosen the soil so the plants can grow.

5. Remove the fruit stems as soon as they appear. Do this before buds open if possible.

6. Remove first runners unless the plant is growing vigorously.

7. When the plants are in shape to send out runners, layer them where you want them, and draw a little soil over the runner cord just back of the node.

Please note the object lesson in pruning as illustrated on the preceding page. The three figures shown are from photographs of the same plant at different stages of its development. On the left is shown the plant as taken from breeding bed April 27. Notice the roots, how they start from the crown. The illustration on the right is a photograph of the same plant taken a few minutes later and after it had been pruned ready for setting. It was then reset and allowed to grow until June 26. The central illustration shows the plant as photographed on that day, fifty-nine days after resetting. It will be seen that the roots sent out many laterals or feeders where the cut was made, as shown by the dotted lines; yet less than one-third of the new roots are shown, as the roots were so tender they broke off when taken from the ground. Otherwise the root system would have compared in size with the foliage. During that fifty-nine-day period the plant built up twenty leaf stems, four crowns and a large, well-developed body.

Value of a Manure Spreader

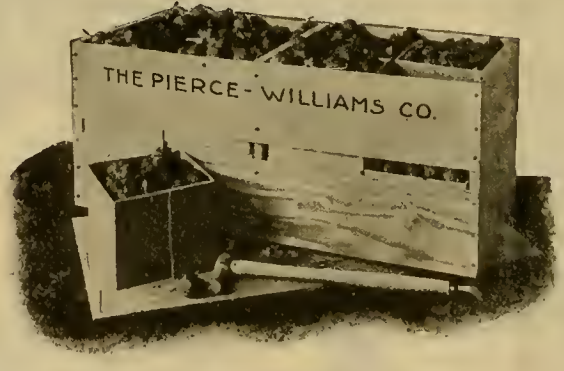
TO know the real value of a manure spreader in the saving of manure, we must first know the value of manure, and what it adds to the productive capacity of a soil, says an Indiana correspondent in Orange Judd Farmer. When we top-dress with manure, we are supposed to add in a measure, all the elements needed for plant growth. It is considered a complete fertilizer. In addition we supply vegetable matter which darkens and enlivens a worn soil. The decaying of manure when applied to a soil also makes unavailable plant food in that soil available to growing plants.

Then the manure proposition is not merely one of additional plant food. Its great value in improving the physical properties of a worn-out soil is one important factor recommending its use. Scarcely a farmer can make or obtain one-half enough manure for his entire farming operations.

To cover ten acres with ten loads to the acre, the old way is difficult. With the manure spreader the ten loads per acre may be cut in two and only five loads used, and the total manure made to cover twenty acres instead of ten. We get the physical benefit over twice the acres by using the spreader. If more plant food is needed supplement with commercial fertilizers. Fertilizers add plant food only. Commercial fertilizers prove the most profitable when used with farm manures. The manure spreader will do much to help this combination. The spreader is used every day in the year and keeps the farmer watch-

FRUIT PACKAGES

The Package Sells the Fruit



KEEP this in mind when ordering your packages for the coming season. Remember that we have been making fruit packages over a quarter of a century and know how to make them right.

We use the best timber we can get, make it up with modern machines, and the result comes as near package perfection as can be attained.

Order early wherever you buy but don't forget our Trade Mark. We make all kinds of boxes and baskets.

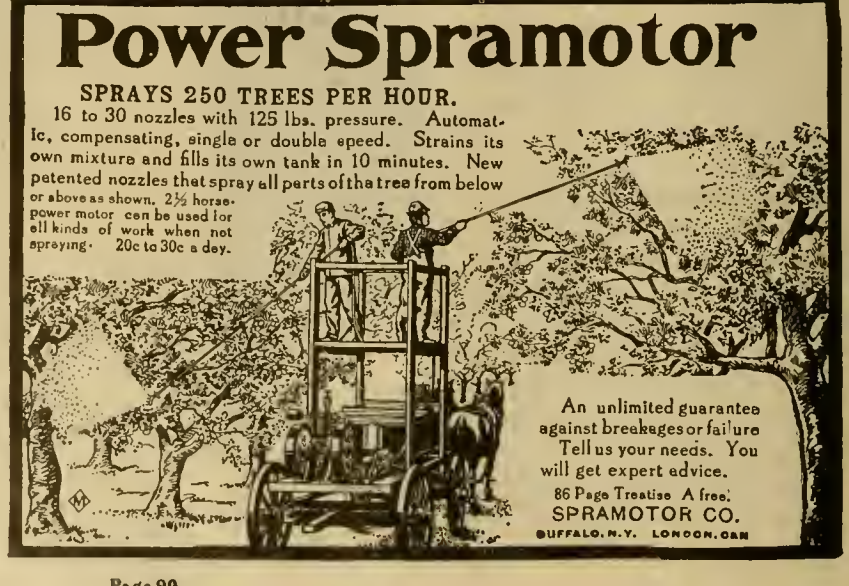
Send for Catalogue and Price List

THE PIERCE-WILLIAMS CO. SOUTH HAVEN, MICH., and JONESBORO, ARK.

Power Spramotor

SPRAYS 250 TREES PER HOUR.

16 to 30 nozzles with 125 lbs. pressure. Automatic, compensating, single or double speed. Strains its own mixture and fills its own tank in 10 minutes. New patented nozzles that spray all parts of the tree from below or above as shown. 2½ horse-power motor can be used for all kinds of work when not spraying. 20c to 30c a day.



An unlimited guarantee against breakages or failure. Tell us your needs. You will get expert advice.

86 Page Treatise A free.

SPRAMOTOR CO.

BUFFALO, N.Y. LONDON, CAN

ing for some better way of making more manure for his own use or of getting it from outside sources. He also learns of ways to save all he makes. Without it, he loses much of the value of manure by allowing it to wash away from his barnyard lots or to fire fang in little piles under the drip or somewhere near the barn.

Cross-cultivating for Sorrel

IN a note to The Strawberry W. H. Chaffee, who grows strawberries on the mountains at Ahwahnee, Calif., gives an account of his work to clean sorrel out of his patch of strawberries, and all will be pleased to hear from him, later on, what the results of his efforts were. He says:

"This year I have had a little experience out of the usual in cross-cultivating about three-fourths of an acre of matted rows to get out the red sorrel roots and rejuvenate the patch. Three years ago I did the same thing and it worked well, but the patch was not so old. Last year I read in The Strawberry of some one who did the same thing and it worked well, so I thought I would try it again. As soon as the vines were through bearing I mowed them off, then took a rake and gathered the leaves and took them all off the patch; then took a twelve-tooth Planet Jr. cultivator, opened it full width and started in and gave it a good thorough cross-cultivating. Then went over the patch with garden rake and raked out every vine that would pull out. Then started in with the hoes. I took a couple of six-inch hoes and put them on an anvil and with a good sharp cold-chisel cut off the sides, leaving the hoes two inches wide on the bottom. I then filed them sharp, sides and all, and was ready for business.

"We hoed all through the patch between the plants, and any plant that was seriously injured by the cultivating we cut out. When we got through we again raked the patch over and took everything off the ground and it was a sick-looking patch that was left. Once more I put in the cultivator and cultivated between the rows, and then gave the whole patch, on the rows and between them, a good coating of green horse manure. The plants soon started their fall growth and the sorrel also; and then it was hoe or cultivate almost continuously until it got so late that neither plants or sorrel would grow, but to look at the patch you would think it was its second year. The vines are large, leaves are broad, and they have apparently made extra-fine crowns. I am waiting anxiously to see what the crop will be."

How Big Results Are Secured in Horticulture

THE editor of Seed Time and Harvest, after quoting from a reader of Gleanings who reports that two years ago he sold within a few cents of $500 worth of strawberries off from twenty-six rows 220 feet long, and about $300 worth from the same patch last year, comments as follows: "There is nothing incredible about this. Of course $500 from less than half an acre of land is a big sum, but a good crop of strawberries in a year of good price can fetch it. This shows that in any locality where the conditions are right, the strawberry is one of our foremost money crops. We can grow good berries in almost any kind of soil, from clear sand to stiff clay. But we must select varieties according to our soil and conditions, and each grower must try for himself what varieties are best suited to his locality unless a neighbor can tell him. In one place an early berry will sell well, in another a late one. In one place the call is for Wilson, in another for Brandywine or Gandy. The grower's aim

BROWN'S "Auto-Spray"

DOES THOROUGH WORK QUICKLY AND EASILY

because it has more power than any other hand sprayer made. That also gives it a wider range of usefulness than any other small sprayer. Yet it is the easiest sprayer in the world to operate. *15 seconds'* work at the plunger charges it with enough power to throw the spray for *10 minutes.*

The tank holds three gallons of solution and one of compressed air, and two pumpings discharge the whole contents. Our Auto-Pop Nozzle, controlled by one finger, regulates the spray from a stream to a fine mist.

Conveniently carried over the shoulder by a strap. All working parts of brass, no rusting, no clogging of nozzle, nothing to get out of order or cause trouble Let us tell you what our customers think of it. We make

ALL SIZES OF SPRAYERS

for all purposes, and guarantee every sprayer to prove satisfactory or money will be refunded. Tell us what you want to accomplish and we will suggest the right style for you to use.

Write for Spraying Calendar, the most complete and authoritative ever published, and a copy of our catalogue. Address

THE E. C. BROWN COMPANY, 61 JAY ST., ROCHESTER, N. Y.

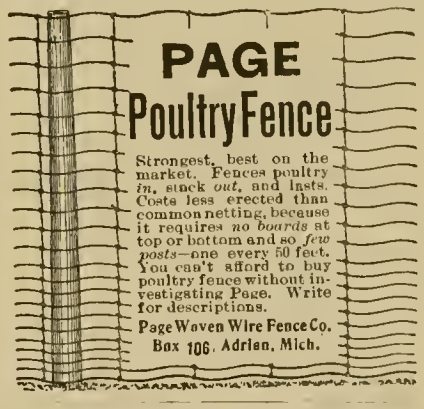
SPRAYING

If you want to spray trees, shrubs or vines, whitewash or disinfect buildings, kill vermin in poultry houses and make sanitary quarters, you can find nothing more to your purpose than a

Deming Outfit

Great variety in the Deming line, 20 styles Hand, Bucket, Knapsack, Barrel and Gasoline Engine Sprayers. All right working. Every style the result of long experience. Don't buy till you send for free catalogue and all particulars.

The Deming Company,
415 Depot Street, Salem, Ohio
General Agencies in Principal Cities
Henion & Hubbell, Western Agents, Chicago



PAGE Poultry Fence

Strongest, best on the market. Fences poultry *in*, stock *out*, and lasts. Costs less erected than common netting, because it requires *no boards* at top or bottom and so *few posts*—one every 50 feet. You can't afford to buy poultry fence without investigating Page. Write for descriptions.

Page Woven Wire Fence Co.
Box 106, Adrian, Mich.

Let ME Quote YOU a Price

On my full line of famous Split Hickory Vehicles. I sell direct from factory on 30 days' Free Trial and 2-year guarantee.

30 Days' FREE Trial.

I Save you 30 to 50% in price

Write for big free Buggy Book, finer than ever this year 125 styles Vehicles and full line high-grade harness shown. Don't buy until you get my book and prices.

H. C. PHELPS, Pres.
Ohio Carriage Mfg. Co.,
Station 340 Cincinnati, Ohio.

RHODES DOUBLE CUT PRUNING SHEAR

PAT.

Cuts from both sides of limb and does not bruise the bark.

We pay Express charges on all orders.

Write for circular and prices.

RHODES MFG. CO.
Dept. 11
GRAND RAPIDS, MICH.

450,000 TREES

200 varieties. Also Grapes, Small Fruits etc. Best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. LEWIS ROESCH, Fredonia, N. Y.

must be to meet an existing demand, or a demand that he can easily create.

"But when you aim to squeeze $500 out of half an acre of land, you must expect to do your part well. It cannot be done except by means of high culture and shrewd management. You must select suitable varieties. You must use plant foods freely, and put the soil in best order even before you plant, and then keep it cultivated and free from weeds and free from an excess of runners, and you must apply a mulch between the rows and around the plants as a winter protection, and for the purpose of keeping the berries clean when it rains. But all these things are comparatively simple if you know how, and they entail but a moderate and, compared with the returns, really small expense."

Gardening, Independence and a Home

THE experience of W. H. Jenkins, who tells the story in the March issue of Suburban Life, is one from which many men situated as was he may take encouragement and hope. Mr. Jenkins is a newspaper man—a reporter and special writer, and finding out-of-door work for a part of his time necessary for health reasons, and desiring to add to his income, purchased a suburban home, consisting of about four acres of ground, a comfortable house and a commodious barn He was able to pay only one-third of the price down, but he assumed the burden and set out to "make the little farm pay for itself." He bought a Jersey cow, a horse and wagon and buggy, about one hundred hens, and set out on his career as a gardener. Very wisely, he began to study, reading all the agricultural and horticulural literature he could get, and began to experiment in growing fruits and vegetables. He decided that his "main money crops should be strawberries, celery and cauliflower, because of the experience and skill required to grow them of the best quality, the local market is seldom well supplied. We quote:

"The rotation of crops which I finally settled upon in my gardening is to plant one-half an acre of strawberries every spring and run them two years so I have an acre every year in fruit. After fruiting, or about the first of July, I plow the oldest part of the strawberry bed, or one-half an acre, and set to late celery. The following spring I set this to early celery. Between the rows of strawberries, the first year, when growing the plants, I grow cauliflower. This plan gives me one acre of strawberries, one acre of celery, and one acre of cauliflower every year. I have hired one man by the month during the summer months, and also extra help by the day. For years I have worked at my literary work forenoons, and the most of the afternoons I have spent, working or overseeing the work, in the garden.

"My little place of less than four acres, with its equipment, has cost about $3,000. The income, in an average year, when I am working my place according to the above plans, runs about as follows: One acre of celery, minimum yield $500; one acre of strawberries, $300; one-half acre of cauliflower or cabbage, $100; blackberries, raspberries, grapes, apples, vegetables, etc., $100; one hundred hens, $100

J. R. Naylor, a practical farmer who invented this great time-saving 2-in-1 Harrow.

My 2-in-1 Harrow Makes a Perfect Seed Bed in HALF THE TIME

BECAUSE it does the work of both a Spring Tooth and a Spike Tooth Harrow at one time and at *one operation.*

Because, you see, my harrow is BOTH HARROWS IN ONE.

If you have to go over your field *four* times now—you'll only have to go over it *twice* with my harrow.

If your ground is in such shape that you now go over it twice, then only *once over* will give you an even better seed bed when you use my harrow, and you can follow right along with a planter.

That means if it rains overnight you haven't got your work to do over again.

On newly broken sod you can work across the furrows (instead of with them) and not pull up a single sod or choke the teeth. You can prepare new ground with my harrow in a THIRD the time you can working the old way—using two harrows seperately.

One lever instantly adjusts my harrow so you can use the spring teeth alone—or the spike teeth alone—or both together—or you can throw all the teeth up out of the way so that the frame will slide along the ground like a stone-boat.

When a live farmer knows about my harrow he wants it. I can name, off-hand, twenty places near my farm in Cass Co., Mich., where you'll find good spring tooth and spike tooth harrows out in the barnyard with grass growing up around them.

The farmers have thrown them away and are using my harrow alone—and they're MAKING MONEY by doing it.

HOW I CAME TO INVENT THE 2-IN-1 HARROW.

I always had the same trouble you've had in getting my ground ready.

It seemed like there ought to be some way around it. So my brother and I got busy one winter AND SOLVED THE PROBLEM.

This is the way we figured:

A spring tooth harrow wants to keep digging in all the time. That keeps the frame pressed hard on the ground and it's a tough pull on the horses.

A spike tooth wants to keep jumping up all the time, you have to put some heft on the top to keep it down. The horses have to drag the heft as well as the harrow.

So we made a 2-in-1 harrow—spring and spike teeth together. That season we used it on our farm and it worked just as we figured it would.

The spikes kept the springs from digging in too far, and the dig of the springs kept the spikes down to their work—and once over (except on extra bad ground) left a smooth, even, perfect seed bed.

That's why my 2-in-1 Harrow was easier on the horses than either a spring tooth or spike tooth alone and SAVED OVER HALF OUR TIME getting ready for planting.

The best proof of how really good my harrow is lies in the actual fact that every harrow I have sold has since sold from two to five more.

My Harrow is such a really wonderful thing and such a TIME and MONEY saver for the farmer that I expect each harrow I place will keep on selling others in the neighborhood. So I have decided to make a

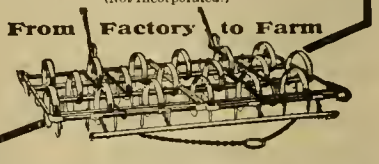
SPECIAL CONFIDENTIAL PRICE

to the first man in a locality who writes me—the confidential price will be AWAY DOWN, too.

Don't even consider buying a Harrow till you get my confidential Introduction Price.

Write quick to

J. R. NAYLOR,
Naylor Mfg. Co., 4 Spring Av., LaGrange, Ill.
(Not Incorporated.)



Planet Jr

the tool for good work all the time

There is one brand that always returns full value for your money.

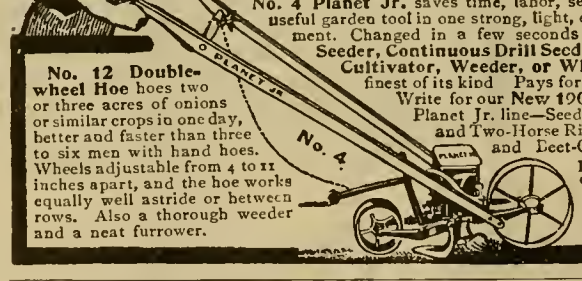
Every Planet Jr. is practical—guaranteed to do the work with least effort, and most benefit to crops. All cultivating parts are of high-carbon steel; the workmanship is highest-grade; tests and inspection thorough. Result—Planet Jrs. do the work of three to six men and keep on doing it for years.

No. 4 Planet Jr. saves time, labor, seed and money. It combines every useful garden tool in one strong, light, easy-running, simply adjusted implement. Changed in a few seconds to an **Adjustable Hill-dropping Seeder, Continuous Drill Seeder, Single-Wheel Hoe, Furrower, Cultivator, Weeder, or Wheel Garden Plow**—each tool the finest of its kind Pays for itself quickly even in small gardens.

Write for our **New 1907 Catalogue** showing the complete Planet Jr. line—Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding-Cultivators, Harrows, Orchard- and Beet-Cultivators—45 kinds in all—with photographic views of practical, successful gardening. There is a Planet Jr. for every gardener's need.

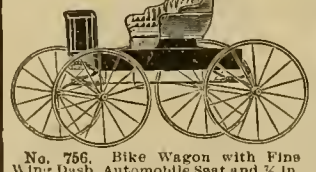
S. L. Allen & Co., Box 0000X. Philadelphia, Pa.

No. 12 Double-wheel Hoe hoes two or three acres of onions or similar crops in one day, better and faster than three to six men with hand hoes. Wheels adjustable from 4 to 11 inches apart, and the hoe works equally well astride or between rows. Also a thorough weeder and a neat furrower.



34 Years Selling Direct

Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.



No. 756. Bike Wagon with Fine Wing Dash, Automobile Seat and ¾ in. Guaranteed Rubber Tires. Price complete, $58.50. As good as sells for $25.00 more

We are the Largest Manufacturers In the World

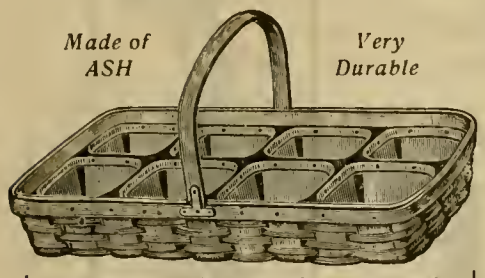
selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large, free catalogue.

No. 313. Canopy Top Surrey with Automobile Style Seats. Price complete, $73.50. As good as sells for $25.00 more.

Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana

EMPIRE PICKING BASKETS

Made of ASH *Very Durable*



No. 2, size 23½ x 14 x 3½, per doz., $3

Will hold eight standard quart berry boxes. Also used for gathering grapes, currants, etc.

BERRY BASKETS at present price a *good investment.*

COLES & COMPANY
109 & 111 Warren St., NEW YORK

Money in Flowers EARN A WEEK **$35.00**

with flowers in yard and garden. Will you let me explain to you how? Some money can be earned almost anywhere, but if you live in a city or large town, or even within twenty miles of a city, I can tell you of an especially good chance to earn money with flowers. Some florists make over $6,000 a year. I don't want to sell you any flowers, but I would certainly like to show you what nice money you might earn with them. Four two-cent stamps sent today brings you my plan of helping you, and also a present worth twenty-five cents.

BOX 878. MRS. A. FACKLER, LINGLESTOWN, PA.

net; dairy products, $100; rental of house, use of horse and carriage per year $100; total income, $1,300. Expenses, $300 for hired help; $100 for grain and manure purchased; $200 for interest on investment and taxes, making a total of $600. This leaves me a salary of $700 for about seven months, as I have but little to do in winter, for about one-half my time; or about 23 per cent on the investment. In about eight years an indebtedness of $1,500 was paid on my place, and $1,000 spent for permanent improvements.

"For the last few years, more thought has been given to home-making, i. e., planting of ornamental trees, shrubs, vines, flowers, etc., than to making a financial profit. Our little family—wife and two children—have been enjoying our suburban home. The wife enjoys helping plan the landscape gardening, and the family fruit-and-vegetable garden, and caring for the flowers and plants. The children have their own little garden, with its flowers and vegetables, and it is also a part of their work to care for the poultry. They read the agricultural papers, and right here on the farm we have a good school for them. This life we are living is far better than the life spent in the office, store, or shop and a rented home, with perhaps no garden, and all supplies to be purchased. When we depend entirely on working with our own hands or brain to provide a living, there is always a sense of uncertainty—something may happen—health or employment may be lost; but here on the farm, nature is working and cooperating with us—something is growing when we are resting, and we always have an abundant supply of fruits and vegetables, which are of better quality than we could purchase and do not call for any cash outlay. There is a compensation that is better and higher than all I have mentioned. This kind of work brings us close to Nature, and we become interested and enthusiastic if we faithfully study her processes. We learn to love our trees and plants, and each member of the family has become a thoroughgoing nature-lover.

Harvesting a Crop of Strawberries

By C. E. Van Wagoner

I HAVE been a subscriber to The Strawberry since March, 1906, and am pleased to say that I have received many new and helpful suggestions from its visits.

As I read the first issue of the New Year and thought of the hundreds of people who had received help from its valuable pages, the thought occurred to me, Why not help the good cause along? and the next thought was, what could I say? This book is written mostly by scientific men and I am only a practical strawberry grower; therefore, there is little that I can say. But on the other hand, as the greater part of its readers are practical men, why would not a practical experience be of interest? It might not be of so much help to the older growers, but there are many people just starting in the business, and they are brought face to face with many perplexing questions. Now, if those questions are discussed through The Strawberry by men who have faced them, these beginners would have the benefit of their experience, and save much time. So I will give you my experience on harvesting a crop of strawberries.

I have been connected with the berry business about twenty years, and have tried many different plans, but like best of all the one I am following now. First, I have the patch so arranged that a road runs through the center of the patch, crossways of the rows. I have a temporary crating office on this road. This office, though simple in construction, has many advantages. It saves labor and expense, and the berries are better if put in a cool place as soon as they are picked. There always is circulation of air through this office, keeping it cool.

To make an office of this kind, take two posts five and one-half or six feet long, lay them down sixteen feet apart and nail a board across one end. Now take two posts enough longer to make a good pitch to the roof and arrange in the same way. After they are raised, brace them well, put your roof on, board the sides about one-third of the way down, put in a good wide shelf to crate the berries on and the office is complete. This size office will answer for two acres very conveniently. When we start picking each picker is

Wasted Energy On The Farm

SOMETHING must give way when you grind clothes on a washboard. It won't be the board. Money will replace the clothes wasted that way, but not your precious energy. That cannot be measured in dollars and cents. There is not a single compensating feature for the energy wasted on a washboard or any device that makes washing hard for you.

Rubbing means wear, and wear means waste, waste of fabric—money—and the waste of priceless human energy.

Why not have something (and have it now) that cuts off this waste? The

SYRACUSE "EASY" WASHER

does it, and you can prove it by

30 Days' Free Trial AT OUR EXPENSE

The "EASY" utilizes air to force suds through the cloth. That means air and suds without friction; that's why it saves energy and fabric. Just remember it, "easy for the operator, harmless to the fabric;" yet forceful, thorough and efficient.

The "EASY" weighs only 28 pounds and is on rollers—easy to carry anywhere when empty and to wheel when loaded.

It's going to last too, because it's made of steel - the toughest kind of steel, and galvanized. Will neither shrink, swell, rust nor leak. Unlike suds-soaked wooden tubs and washers, there is no retention of germs or filth, but it is clean and sanitary.

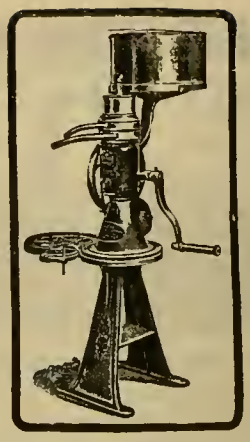
Ask for our free booklet of

"MODERN LAUNDRY FORMULAS"

and learn how to solve the washing problem and stop that wear and waste for all future time.

DODGE & ZUILL
5359 So. Clinton St., Syracuse, N. Y.

The Empire PROVES Its Claims!



We do not "claim" everything; we do not try to make you think that you will go into bankruptcy, if you do not buy the

Improved Frictionless

EMPIRE

Cream Separator

but what we claim for it—the machine itself proves.

It's the sort of machine that appeals to men and women who are seeking real worth and substantial merit—the best value for their money—men and women who cannot be mislead but who want cold, hard facts.

If you want the separator that will make the most dollars for you, we ask you to let us PROVE to you that

The Empire turns most easily. The Empire requires fewest repairs.
The Empire is most easily washed. The Empire lasts the longest.
The Empire gets the most good cream.

It is well worth your while to investigate—to put aside all prejudice—to give an impartial hearing to the Empire's claims of excellence. Other Cream Separators do good work, of course, but the Empire does the *best work, and you want the best!*

Send for new catalogue and *proofs*. No matter what separator you are using, you will be interested in the Easy Running Improved Frictionless Empire.

Empire Cream Separator Co.
Bloomfield, N. J.
Chicago, Ill.

given a tray holding four baskets and a ticket. I have two pickers to each row. When they get their baskets full they bring them to the office and receive credi. by having a hole punched in their tickets. In this way they keep track of their own work.

I have a foreman to look after the picking. No one is allowed to walk crossways of the rows while carrying out berries. I pay for picking every night. I have the pickers register their names by number, commenceing at No. 1. When they bring in their berries their number is marked on the handle of their tray with chalk; then if anything is wrong with the berries one knows who is to blame. I used to have a great deal of trouble because pickers would put bad berries and leaves, sometimes straw, in the bottom of the box and nice berries on top. But this plan puts a stop to that, as each picker's name is on his own berries and any trouble that might arise easily is located.

Alpena, Mich.

Mr. Van Wagoner exhibits a spirit of helpfulness and good-fellowship worthy of imitation by all the members of The Strawberry family. It is highly important that the scientific side of strawberry production be presented; without it we never should know the whys and wherefores of it. But it is the plain accounts of the actual experiences of practidal men that inspire and encourage others to try to achieve success in their work.

Spring Work with Ever-Bearing Varieties

By S. H. Warren

I WOULD like to remind those people who bought everbearing "Pan American" strawberry plants last spring that now is the right time to divide their crowns to increase the plants.

It is like the cutting apart of a clump of rhubarb. It renews life, causing the plants to send out new roots. Be sure to reset them at once in strong, moist soil, as that is what they require. If this is done you may be as sure of getting as good a crop of berries in August, September and October as from any spring-bearing variety. This I know, as I have fruited them four years.

My plants do the best on a reclaimed swamp. The originator grows his on strong clay soil. Be sure to keep all the blossom-stems cut off till July 15 if you wish to have them do their best in the fall. Where the soil suits them, new blossom-stems are appearing continuously until freezing weather in November here in Massachusetts.

Weston, Mass.

ON a recent Monday morning the pastor of a church in Virginia was the recipient of a basket of blackberries brought to him by a little girl of the parish.

"Thank you very much, my dear," said the minister. "These berries are as fine as any I've seen. I hope, however, that you did not gather them yesterday—the Sabbath."

"No, sir," replied the child, "I pulled 'em early this mornin', but they was a growin' all day yesterday."

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter VI—In which it is shown that Marketing Berries is as Important as Growing Them

THE losses I had sustained in the preceding two years through lack of knowledge as to the best way to market my berries, compelled me to think more seriously than ever before of this part of the business, and the more thought I gave the marketing problem the more I was convinced that the marketing was the largest half of successful strawberry production. The two big crops of berries I had grown made me feel reasonably certain that I had mastered the productive part of the work; now if I only could devise some plan to market the berries at a profit, success would be mine. The low price received for my second big crop of berries that had just been marketed left me little profit after growing and marketing expenses had been deducted. I knew that my expenses for the coming year were to be heavier than theretofore because I was following more intensive plans. I had several men working steadily at hoeing, cultivating and cutting runners. Everything was kept in ideal condition. Scarcely a weed could be found in my five acres of plants. And my experimental beds were a sight worth going miles to see.

Although no rain had fallen for more than two months, the plants were growing vigorously and indicated no signs of suffering from lack of moisture, even during the extreme heat of the day. It was so dusty I could scarcely see the men and horses that were at work fighting the battle, and the sun was extemely hot. We had stirred the dust mulch with cultivators and hoes so often that a dust blanket about three inches thick and as fine as flour covered the entire field. I was cautioned by several neighbors not to cultivate while it was so hot and dry; but I was practicing what I had read from books written by scientific men. Day after day and week after week passed, but no rain came until the latter part of October, which was more than a three-months' drought, and when the rain did come, how my plants stretched themselves! I certainly learned a lesson in cultivation that season that always will be remembered. There was no comparison between my cultivated plants and those of my neighbors which were not properly cared for. One neighbor lost most all of his plants simply because he deferred cultivation until it rained.

"It will not do to wait for rain," I said to this neighbor. "We must treat each rain as though it were the last we expected to get, and from now on I am going to cultivate after every rain just as soon as the soil will crumble."

That fall when I was covering my plants and noted how fine they looked it gave me faith in myself to think I had won a victory by bringing my plants safely through the most extended drought that had affected our section for years. And while the winter was quite severe the plants were in ideal condition when we uncovered them the following spring. But I knew that the intensive cultural methods given them through the hot, dry summer had exhausted much of the nitrogen from the soil, and so, to help the plants along, I gave them a dressing of nitrate of soda, applying one hundred pounds to the acre, just after removing the mulching. This must have been what they needed, for it seemed to me I could see those plants grow. The dry summer and fall were favorable to fruit-bud development, and when the bloom started to open it was a sight that would enthuse any lover of nature.

One day that spring while pulling a few stray weeds that had worked their way up through the mulching, the market problem was again brought forcibly to mind. I knew that if weather conditions continued favorable, the crop was going to be unusually large, and so I just kept pulling weeds and thinking. I soon decided that the only way to run the berry business was on business principles, and the business way to run any business is for the producer to set the price on his products. I staid out in the field until I had formulated a letter that would do to write to my customers, and when I had it well in mind, to the house I went. We had purchased a typewriter at a cash cost of $102, and my wife was the stenographer, so you see there was one man at least in this world who could dictate to his wife.

"Well, we surely have a great prospect for a big crop of berries this year," I said to my wife.

"Yes, and if only we could hit upon some plan to sell the berries for what they actually will be worth, we would have the nicest little business in the town," were the words that came from the better side of the house.

"Don't worry, I have that all fixed; just sit down at that machine and I will dictate a letter to be sent to all of the growers who handled our berries last year." I will never forget that day or that letter. It read like this:

Mr. Grocer,—Dear Sir:—My berries this year are going to beat all records, and you can safely promise your berry-hungry customers that it will not be long until they can tickle their palates with Beatty's Celebrated Strawberries. But be sure and tell them that they will have to pay 15 cents per quart or two quarts for 25 cents this year, because Beatty says so. As I am the producer of these berries and know just what it costs to grow them, I am the only one who can intelligently name the selling price. I will pay you 15 per cent commission for selling my berries, and also will pay the express.

"Why, Frank! surely you are not going to send a letter like that to your customers!"

"Yes'm, I am going to send it to every dealer on my list."

"I'll bet you lose every one of them," was my wife's worried reply.

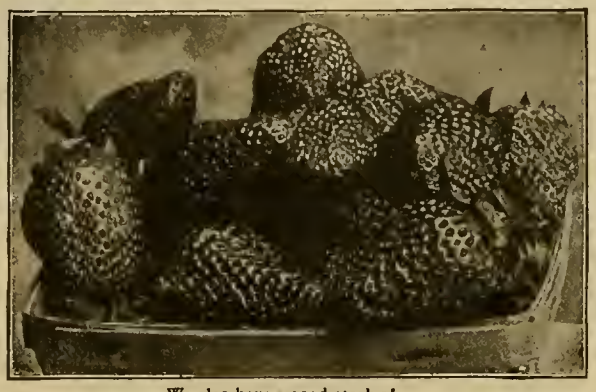
"Well, if they don't want my berries at

PEDIGREE PLANTS IN THE FAMILY GARDEN OF J. W. SWAN, EVERETT, WASH.

STRAWBERRY PLANTS

Complete assortment of varieties. Try **EKEY, EARLY HATHAWAY, NEW HOME.** Prices are right. Our Strawberry Plants are grown on new land that makes an abundance of fibrous roots. The plants are thrifty, heavy crowns, carefully trimmed of surplus vines and leaves, tied in bundles of 26, packed in slated crates.

Our Peaches are exceptionally fine and we know are just what you want. Order before our lists of varieties are broken.



Our Apples are on whole root. They are strong, healthy, well-rooted and first class in every respect. Complete list of varieties. One Yellow Transparent apple tree eight years old last season netted $8.00

We also have a good stock of

PEAR, PLUM, CHERRY and QUINCE TREES, ASPARAGUS ROOTS, GRAPE VINES and CALIFORNIA PRIVET

Order at once. Illustrated Catalogue Free.

J. G. HARRISON & SONS

Box 200 **BERLIN, MD.**

THE AUTOMATIC ROW SPRAYER

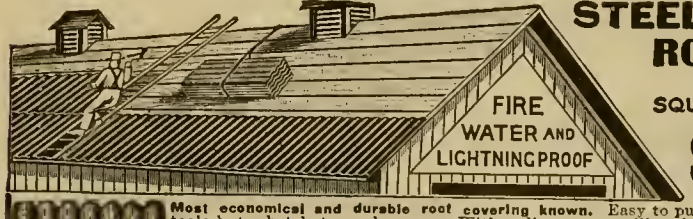
Is the Ideal Outfit for Strawberries, Potatoes, Beets, Etc. Three nozzles to the row. High pressure forces mixture to every part of leaf and branch. No cost for power.

The Government Buys Wallace Sprayers

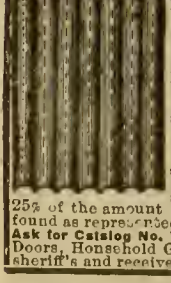
Two orders just received for these Automatic Row Sprayers from the United States Government for beet spraying at Experiment Stations. After full investigation the Government selected Wallace Sprayers as better than all others. In adaptability, economy, thorough work, and easy handling they have no equal

Other Automatic and Gasoline Power Sprayers for orchard and field work. **"The Wallace Spray Way"** gives all particulars. FREE. Write for it.

WALLACE MACHINERY COMPANY, Dp't 50, CHAMPAIGN, ILLINOIS



STEEL ROOFING
PER 100 SQUARE FEET
$1.50



Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding. Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new. **$1.50** is our price for our No. 15 grade of Flat Semi-Hardened steel roofing and siding, each sheet 24 ins. wide and 24 ins. long. Our price on the corrugated, like illustration, sheets 22 ins. wide x 24 ins. long, **$1.75.** At 25c per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, **per square, $2.00.** Fine Steel Beaded Ceiling, **per square, $2.00.** Can also furnish standing seam or "V" crimped Roofing. **WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO** except Okla., Tex. and Ind. Ter. Quotations to other points on application

Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this ad C. O. D., with privilege of examination if you will send us 25% of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit. **Ask for Catalog No. WE 733.** Lowest prices on Roofing, Eave Trough, Wire, Pipe, Fencing, Plumbings, Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales. **CHICAGO HOUSE WRECKING CO., 35TH AND IRON STS., CHICAGO**

In Writing to Advertisers Please Mention The Strawberry

my price, I'll get dealers who are willing to pay what fancy berries are worth. I don't intend to let any grocer put the price on my products. He doesn't know anything about the cost of growing my berries. I'll name the price or quit the business."

"I believe you are right; we might as well lose one way as another," and my wife started pounding the keys of the typewriter like an old hand at the business.

I must admit that both myself and wife were a little nervous until we received answers from these letters, fearing that the dealers might balk at these seemingly high prices, but in a few days the replies began to reach us, and every last dealer said:

"Let your berries come; we will abide by the law."

Well, a happier pair you never saw. Berries soon were ripe and everything went smoothly until the market became overstocked with cheap berries, some selling as low as 5 cents per quart. Then some of the dealers wrote me stating the circumstances, and asked me to advise them what to do. They didn't think it possible to keep the berries at 15 cents per quart. These letters made me pretty nervous, but I sent word right back and told them to "stand pat" on prices. This took some grit, but I knew to weaken at this point meant failure, while if I stuck to my price this year, I would find it easier sailing in years to come.

(Continued next month.)

Millions of Dollars in the Soil

ONE of the suggestive and illuminating bulletins that so frequently come from the Illinois Experiment Stations asserts that "at ordinary commercial prices the nitrogen contained in the air above each acre is worth more than ten million dollars," and goes on to say: "By means of bacteria which live on their roots, clover and other legumes have power to draw on this unlimited supply of free nitrogen.

"The ordinary, naturally well surface-drained land of the corn belt in central and northern Illinois contains in the soil of one acre to a depth of seven inches sufficient total potassium for a hundred bushels of corn each year for 1900 years, if the stalks are returned to the land directly or in manure. The supply is about 36,000 pounds and one hundred bushels of corn (grain only) contain 19 pounds of potassium. Potassium may be liberated from the soil as needed, by means of decaying organic matter, such as farm manure, clover residues, and legume catch-crops as green manures.

"If we could draw at will upon the total phosphorus in the first seven inches of soil the supply (about 1200 pounds) would be entirely exhausted to that depth during the lifetime of one man if hundred-bushel crops of corn were taken from the land. A hundred-bushel crop of corn

requires seventeen pounds of phosphorus for the grain and six pounds for the stalks. Oats, wheat and clover also draw heavily upon phosphorus. When crops are fed the animals store in their bones about one-fourth of the phosphorus contained in the food consumed."

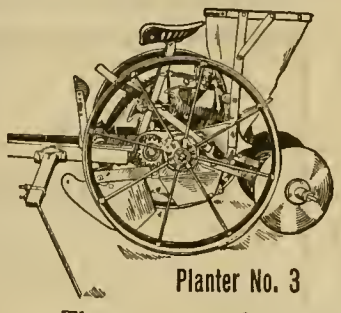
Two lessons may be gleaned from these suggestions that are of great encouragement to all soil-tillers. One is that nature cooperates with man to keep the soil well filled with nitrogen if man will but do his part by following a system of crop-rotation in which some leguminous crop, such as clover, field-peas, cowpeas or vetch, is grown at proper intervals. The other is that we need never exhaust the soil if we give back to it the plant food consumed in the development of crops.

As to phosphorus, nature has stored up millions of tons of it in Tennessee and other Southern states, and it may be bought for a comparatively low figure. In states where little grain is grown the drain upon phosphorus is not so great, and if all the bones of the animals fattened and killed in each neighborhood were ground up and put back on the soil, in connection with stable manure, fertility would be kept up continuously. Over in France lands that have been continuously cropped since dates preceding the christian era are today in better fertility than they were when Julius Caesar ruled ancient Rome. But the French farmers have done their part, and the soil-robbers of America who have despoiled the heritage of coming generations by their extravagance and shiftlessness must turn over a new leaf and get into line with modern thought and methods or go out of business.

ASPINWALL POTATO MACHINERY

Machines With A Pedigree

Great Improvement for 1907



Planter No. 3

Have you seen our latest ?

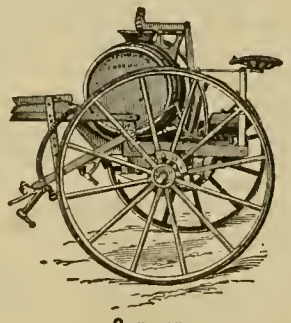
Aspinwall Planter No. 3

With Sack Hopper, plants 99% good. No bridging in hopper.

The most perfect machines for the purpose in the world. With our perfection **Cutters, Planters, Sprayers, Diggers** and **Sorters,** potato culture may be made profitable. Send for our illustrated catalog.

Contains valuable spraying information, tables, etc.

Booklet on Potato Culture" Free.



Sprayer

Aspinwall Mfg. Co.

215 Sabin St., Jackson, Mich.

The Meaning and Importance of Capillary Action

FROM a subscriber at Prospect, Ohio, Leonard Harmon, comes a request the like of which we should be pleased to receive from all readers who are seeking information. He says:

In an early issue of The Strawberry please go into details regarding "capillary action" or "attraction". A great many of us do not fully understand what is meant by the expression.

When the snows and ice of winter have melted, and the early spring rains have come, the soil usually is left so moist as to be fully saturated with water to a depth of from two to three feet. Just as soon as the earth's surface begins to dry, waste of this stored up moisture begins. If the sun shines and a brisk wind is blowing, it will be lost with great rapidity. Sometimes the evaporation will be as great as forty, sixty or even eighty tons of water from one acre in a single day. The waste will be according to soil and weather conditions, of course, and this waste continues until the ground is broken up. The plowing cuts off completely a layer of soil and lays it down bottom side up in a loose, crumbled condition, reducing capillarity to a minimum. After the broken soil has been harrowed and firmed, if a loose soil mulch is made and kept over the top, the waste of moisture will be slight. This is why plants of any kind that are properly cultivated do not suffer during a drouth.

Capillary action as applied to the soil is the action of water working its way up to the surface from the lower subsoil through the small or hair-like tubes in the earth. This action is essential to plant life. As the lower moisture works its way up to the top it carries with it mineral matter, which has been dissolved from the soil grains, and if there is no dust mulch to check this moisture, it will work its way to the surface and will be evaporated, while mineral matter (plant-food) will be left on the soil's surface to be washed away by heavy rains. But if a dust mulch is kept continually upon the surface, capillarity is checked, this moisture which is charged full of mineral matter will be held just below the dust mulch in the warm soil, and the roots will quickly absorb it. To destroy or check capillary action, therefore, by surface cultivation is one of the most important things to be done in the production of crops.

Cost of Producing a Dozen Eggs

POULTRY people everywhere will be interested in a report from the Cornell (N. Y.) Station as to the cost of producing eggs, and which shows a great difference in breeds. It is very interesting as showing the practical results which are being obtained.

The experiments were carried on with the co-operating assistance of several poultrymen. Each flock of fowls was cared for by the owner in the manner which he thought best. In the bulletin there are given minute accounts of the methods employed in feeding and caring for the birds, but as the space is limited they must here be omitted. Suffice to say the reports show that they were given the best care and provided with the best grains.

The test was fairly representative of the breeds, among the fowls being White Leghorns, Plymouth Rocks, Black Minorcas, Brown Leghorns and White Wy-

andottes. There were twenty-nine flocks engaged in the experiment. In a table showing the summary of the tests, rank one in food cost of one dozen eggs was held by White Leghorns (pullets), the amount being $.085. In eggs laid per 100 fowls per day the same flock held first place with the number thirty-eight to their credit. They were fifteenth in cost of food consumed per 100 fowls, the amount being $32.06. The minimum food cost of one dozen eggs was $.085, the maximum being $.339. The maximum number of eggs laid per 100 fowls per day was thirty-eight, the minimum being 9.3. The minimum cost of food per 100 fowls during this period of seventeen weeks was $17.58, the maximum being $52.20.

In the seventeen weeks from December 1, 1901, to March 29, 1902, and in the similar period of 1902-3, in twenty-nine flocks representing ten owners and 5,000 fowls, the average daily production of eggs was 22.8 per 100 fowls.

During the same period the average food cost of one dozen eggs was nearly 18 ($1.77) cents. The flocks that laid most eggs during December and January laid most eggs also in March.

The egg production of pullets was notably in excess of that of hens, particularly in the earlier periods when the price of eggs was highest.

The average cost of feeding 100 hens for seventeen weeks was $35.33.

The average value of product exceeded the cost of food by $16.13 per 100 fowls.

The cost of producing a dozen eggs as given appears somewhat high, but it must be remembered that the cost of food in the Eastern states is higher than in the West and the prices of eggs are correspondingly higher, the price reaching during the winter referred to 36½ cents. This makes the highest selling price of one dozen eggs nearly twice as much as the average cost of production, and this is about the usual ratio.

Choose a Definite Life-work

HOW are you going to make your way in the world? This question we wish to direct to every young man and young woman who today is casting about, either mentally or otherwise, for some vocation, or who is still "living" at the expense of parents or friends. A definite purpose in life is compass and rudder and beacon-light to the man or woman fortunate enough to possess it. It is inspiration and encouragement and hope as well. Did you ever meet a sadder thing in the world than a purposeless person? Not a thing in the world interests them. Like some derelict on the ocean they wander aimlessly over life's sea, only to be cast up, broken and useless, on the rocks of indolence and incompetence.

Don't let your life go to waste in that way—make it worth while to yourself

TREES and PLANTS OUR POPULAR COLLECTION

The most extraordinary collection of fruits ever offered for the money. Including the *finest varieties* from early to late of

APPLES, PLUMS, PEARS, PEACHES, CHERRY, QUINCE and APRICOT TREES, and CURRANTS, GRAPES, BLACKBERRIES, RASPBERRIES, STRAWBERRIES, ASPARAGUS, ETC.

Nothing has been left out of this collection to make it *complete*. We have done your thinking for you. This offer will not appear again. *Get our catalogue now.* It will tell you all about this wonderful collection.

H. S. WILEY & SON, DRAWER 10, CAYUGA, N. Y.

The Strawberry Photographic Contest for 1907

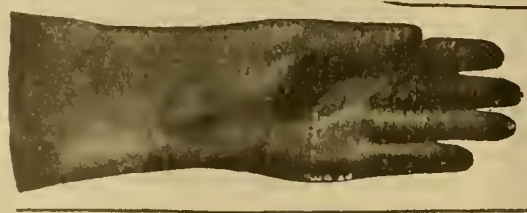
LAST YEAR the photographic contest between members of The Strawberry family aroused much pleasant rivalry, and resulted in giving to the world many beautiful and instructive views of strawberry fields. It is our purpose to make the contest this year of even greater interest to all. We therefore shall offer a duplicate set of prizes----one for the best photograph of a field of strawberries not less than one acre in extent; the other set of prizes for a photograph of a family strawberry patch—as follows:

A---Commercial Strawberry Field		B---Family Strawberry Patch	
1st prize Photograph, cash	$5.00	1st prize Photograph, cash	$5.00
2nd prize Photograph, cash	3.00	2nd prize Photograph, cash	3.00
3d prize Photograph, cash	2.00	3d prize Photograph, cash	2.00

It is to be understood that all photographs submitted in this contest are to be the property of the Kellogg Publishing Company. The season will extend from spring until late fall, the individual contestant choosing his own time for taking the view; the desire being to show ideal conditions at every stage of development of the plants. Expert photographers will pass upon the merits of the photographs and award prizes.

The Kellogg Publishing Company

Three Rivers, Michigan



SAVE YOUR HANDS

No more stained, chapped or rough hands, while doing housework. ECONOMY RUBBER GLOVES are an absolute protection and when used leave the hands soft and white. Each pair guaranteed Sent postpaid for 57 cents. When ordering send for size larger than your glove number. Order now. Do it today.

MRS. J. H. PRATT, Three Rivers, Mich.

and the world! There comes to us a letter from one who has made one brave effort in life, but failing health makes a change necessary, and with courage and confidence she looks forward to even greater things in her new work. She writes us from a Missouri town as follows:

I am a piano teacher and in poor health. Had to leave St. Louis on account of my health. Have read The Strawberry and have become very greatly interested in the opportunity offered by strawberry growing, and want to know everything about it.

Success already is assured where one enters upon her work in the spirit this woman has shown, and we are confident that not only will she find renewed health in the invigorating contact with good Mother Nature, but that prosperity of the material kind shall be hers, and she also will have the great satisfaction of knowing that she made the best of her opportunities.

When we think of that little woman, starting out at this time upon a new career of self-support and consider the thousands of stalwart young men and rosy-cheeked girls who are well content to let father struggle and mother economize that they may be supported in idleness—well, we wish at least to call their attention to the opportunities offered by gardening and fruit growing; try to wake them up to a realizing sense of their own mental and moral condition, and get them to the point where they will be glad and anxious to make for themselves "a local habitation and a name."

And as the little Missouri piano teacher has discovered, there is no more attractive field and none more promising than that offered by strawberry production, which offers limitless opportunities to enterprise and industry everywhere.

We wouldn't say so if we couldn't prove it.

THE

Underwood

Typewriter

is the one real visible writer which has been unquestionably proved to be dependable under all conditions, adapted to all classes of work, and free from experimental defects.

Underwood Typewriter Co.

31 State Street

DETROIT, MICHIGAN.

Organization for Selling Fruit

By J. B. Graves

FRUIT GROWERS ought to organize to sell their fruit. Other producers have done so and have found it greatly to their advantage.

1. One advantage of organization is to secure better banking arrangements. The influence of an organization with a bank is more powerful than that of any one man. A bank will accommodate a member when it knows of his honesty and his capability. It can be induced to help the individual growers tide over a crisis. The recommendation of the organization will get the money.

2. A second advantage: organization reduces the shipping expenses and puts the fruit into a more distant market. Growers shipping independently must ship by express, unless they are large growers, and the rates of such shipments are high. By shipping car lots the rates are lower. Express shipments are generally without refrigeration and to near-by markets. These are often lower markets. Under refrigeration distant and better markets can be reached. By cooperation the small lots of many growers can be combined. The combination makes it possible to reduce the expense and to reach the better market and higher price.

3. Another advantage: cooperation gets cheaper material. Acting singly growers must buy their package and spray materials, fertilizers, etc., at retail prices. Acting jointly they may buy such goods in large lots at wholsale prices directly from the factory. In such dealing there is a decided saving.

4. By cooperation better railway service can be secured and better shipping facilities. Railroads and express companies solicit business when it is on an extensive scale. They compete one with the other for such business, vie with one another in their favors, and do special service for an organized concern. Special trains have been put on through the efforts of organizations.

5. Organization stimulates growers to adopt better cultural methods. By-laws require it. Best methods are taught. The members encourage one another. By visitation and observation lessons are learned and better methods are acquired. Contact with progressive growers inspires. There is a healthful enthusiasm developed by community work.

6. Organization develops better methods of picking and packing. Rules are made by associations to govern the workers. The rules are enforced. The enforcement makes better pickers and packers. They try to learn, try to do good work, try to excel, try to do as well as the best. This rivalry in finish work brings high-class results. As a rule the best work in both picking and packing is done by cooperative unions. The price is largely governed by high-class work in cultivation and packing.

7. Another advantage and result of organization is specialization. Growers make many experiments. They do it to find the best thing. They find it. In localities they find that a certain variety of apples or strawberries succeeds better than any other both in the field and in the market. The tendency of cooperation is to specialization. The best strawberry localities are coming to adopt a single variety. Commercial and cultural evolution is getting in its work. The finest survives. If it is the part of wisdom for a union to

BISSELL

Carpet Sweeper

actually costs less than 2cts a month

That seems a broad statement to make, especially so when you know that a Bissell carpet sweeper would save your carpets more than two cents worth every time you sweep, would save you more than two cents worth of time every day in the year, would really change the drudgery of sweeping to a pleasant pastime, saving your energies and preserving your health—but just consider the fact that a

Bissell

sweeper will last twelve to fifteen years and more, and you can see at once that two cents a month would more than pay for a Bissell.

One costs from

$2.50 to $5.00

according to style, finish, etc. Many housekeepers have found it a good investment to send their early style Bissell's sweeper up-stairs, where the sweeping is lighter, and have bought a latest improved Bissell's "Cyco"-Bearing carpet sweeper for the heavier down-stairs work. This saves many steps and considerable time in carrying the sweeper up and down stairs, affording the use of a new style Bissell's where it is most needed.

Buy a Bissell "Cyco"-Bearing Sweeper now of your dealer, send us the purchase slip **within one week**, and we will send you **FREE** a fine quality card case with no printing on it.

Sold by all first-class dealers. If your dealer does not keep them, write to us.

BISSELL CARPET SWEEPER CO.

(Largest Sweeper Makers in the World)

Dept. 122, Grand Rapids, Mich.

grow a single variety of fruit, it is the part of folly to continue to grow many.

8. One fruit problem organization will work out sooner or later—the problem of disposing of our unmarketable fruit, such as culls and seconds. By cooperation growers can establish canning factories, vinegar plants, evaporators, and other mills for manufacturing our refuse fruit into profitable by-products. Saving our losses, our wastes, is a great problem. Organization is at work on this now. It finally will work it out.

Many growers are possibly a little selfish and a little suspicious. These vices or weaknesses or whatever they may be, oftentimes stand in our way, and we should seek first the good part of a healthy organization

Neosho, Mo.

Overflow Correspondence School

SO MANY of our readers have sent in questions this month that we have had to create an overflow class for their benefit. This is the season when information and definite instructions must be promptly received, and it is our aim to furnish it right up to date.

M. H., Collison, Ill. We are readers of The Strawberry and would not like to be without it. My wife and I read every issue from first to last, with much interest and profit. The berries on our plants were immense; they just laid in piles around the plants. They were a wonder to those who saw them in fruit, and one would hear folks say: "Just look here! Just look there! Just look—what piles of them!" I would like to ask two questions:

1. What kind of soil is best adapted to the Gandy?

2. After the second picking on my Brandywine they became knotty and deformed. What is the cause?

The Gandy appears to be partial to a clay soil. It is a variety that does not require a great amount of manure, and it yields as good crops the second and third year as it does the first.

2. The Brandywine always has been considered a strong pollenizer, and so it is; but a series of experiments has convinced us that by setting it with some other good bisexual, like Dornan, Pride of Michigan or Parsons' Beauty, results in eliminating the knotty, hard-end and green-tipped berries. This indicates that Brandywine is influenced favorably by receiving pollen from other varieties in addition to that from its own flowers.

A. H. S., Nampa, Idaho. I set out about a half acre of strawberries last fall in September as my neighbors told me that they would be in time to bear a crop this season. I never raised any berries; in fact, my time has been spent in the school room for many years; so I merely took the land as I found it, and as I could get very little expert advice in the matter, decided to depend on myself. The land, which I have only owned a few months, was in wheat last season, so I had it plowed and harrowed thoroughly and then I made my rows so that they could be irrigated, and about once a week until November 1, I turned the water through the rows. As soon as cold weather came (it is never very cold here) I put

Established in 1869

BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT THE MICHIGAN BASKET FACTORY OF WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

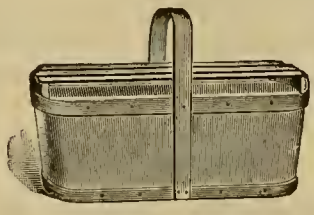
Experience Counts

Headquarters For

BERRY BOXES

Peach and Grape Baskets

Also Melon Baskets



Fruit shipped in our packages insures highest prices.
Order boxes now and make up at your leisure.
erite us for Berry Box Machine.
Illustrated Price List Free.

Wells, Higman Company
Box 10, ST. JOSEPH, MICH.

The Acme Harrow

Well pulverized soil is the most important requisite of a good seed bed. No field—no matter how rich—is well prepared for seed unless the ground has been thoroughly pulverized.
Does the old fashioned spike or spring toothed harrow do that? It does not. It does tear up the grass, weeds and trash the plow buried, and which should stay buried.
What you need is the **ACME All Steel Riding Harrow**—the only harrow built on scientific principles.
Flat steel spurs go ahead of the Acme coulters or teeth, crushing and leveling every clod.

Try the Acme FREE.

Then the coulters like long plowshares follow, turning the soil both ways and mixing it. When they get through with it the soil is as fine as a Herrow can make it and presents all its food to the seed.
Think how much easier on the team the Acme Harrow is! The old harrow dragged bluntly against the soil. The Acme cuts smoothly through.
Then the Acme is very convenient to move from one field to another, as a lever raises the coulters from the ground. One man can put the harrow in a wagon or sled with ease.
The Acme is the lowest priced harrow made and is built to last.
Write for free book, "A Perfect Seed Bed." Written by distinguished agriculturists. A postal to me and it will come.

DUANE H. NASH, Box 39, MILLINGTON, N. J.

SPECIAL 60-DAY OFFER TO INTRODUCE OUR LATEST LARGE, POWERFUL ACHROMATIC TELESCOPE, WITH SOLAR EYE-PIECE

See the Spots on the Sun.

NEEDED ON FARM, SEA OR RANCH. BY MAIL INSURED, $1.20

POSITIVELY such a good telescope was never sold for this price before. These Telescopes are made by one of the largest manufacturers of Europe, measure closed 12 inches and open over 3½ feet in 5 sections. They are BRASS BOUND, BRASS SAFETY CAP on each end to exclude dust, etc., with **POWERFUL LENSES**, scientifically ground and adjusted. GUARANTEED BY THE MAKER. Heretofore Telescopes of this size have been sold from $5.00 to $8.00. Every sojourner in the country or at seaside resorts should certainly secure one of these instruments; and no farmer should be without one. **OBJECTS MILES AWAY** are brought to view with astonishing clearness. Sent by express for $1 safely packed; if by mail insured, $1.20. Our new catalogue of Watches, etc., sent with each order. This is a grand offer and you should not miss it. **WE WARRANT** each Telescope **JUST AS REPRESENTED** or money refunded. **WHAT A TOURIST SAYS:** NEW YORK, Nov. 4, 1905. Messrs. Kirtland Bros. & Co. GENTLEMEN: I had with me on my recent European trip one of your Excelsior Solar Telescopes, with which I had the pleasure of observing an Eclipse of the Sun. At the Austrian Tyrol it was almost 80 per cent concealed. Your Solar eye-piece is a great thing. Its value to me on this occasion was many times greater than the entire outlay for the Telescope. Yours truly, L. S. HENRY

KIRTLAND BROS. & CO., DEPT. SY **90 CHAMBERS STREET, NEW YORK.**

20th Century Combination

A wagon box, stock rack and hay ladders combined. Can haul loose hay or straw, all kinds of live stock ear corn, threshed wheat or oats, apples potatoes, etc. Good for every use on the farm without removal of parts. **All Changes Made Instantly.** Catalog Free

MODEL M'F'G. CO.,
Box 52 Muncie, Ind

THE D AND B LINE TRADE MARK

Northern Grown Seeds

are full of Northern life and vitality and mature earlier, better and bigger crops. **"D & B's Earliest of all Wax,"** the earliest, best, most prolific wax bean that grows. Good Seller. Money Maker. Send 12c stamps for a big packet, our new 150-page catalog of **quick growing Northern Seeds** and our **big cash club offer.** Calalog alone, free.

DARLING & BEAHAN,
509 Michigan St., Petoskey, Mich.

Write for Grand FREE Millwork Catalog

of 5000 BARGAINS in Sash for Brooder Houses, Hot-Beds, Cold Sash, Roofing, Paper, Windows, Doors, etc. SAVING HALF for Poultrymen, Truck Farmers, Users. Prompt, Safe Delivery Direct from Mill—New Goods

COLONY HOUSES and SAMPLE BARGAINS

It will cost you scarcely ¼ for your Colony Houses and Brooder Houses if you'll follow our plans and use a window like this below at a cost of only

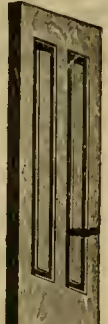
65c EACH

This Window

is just the thing for many purposes for poultrymen. Is high grade—strong—8 lights—catalog explains sizes— **65c**

Window Hangers

These peerless hangers and fasteners cost only 20c per pair. Large, strong and handy.



80c

THIS DOOR

High grade, four-panel, strong, no "come apart" to it—only 80c.

500 Sq. Ft. Standard High-Grade BUILDING PAPER

Just the thing to protect little chicks—stands rough usage, too. Per 500 sq. ft. **33c**

Step Ladders

15c per foot up to 12 feet

Highest Quality Guaranteed

Stop planning. Don't think of doing any Repair Work or Building, whoever you are or wherever you are, until you have written us a postal for our Grand FREE MILLWORK Catalog and FREE Roofing Book. Plans in it free for you, and also—

We save you HALF in DOLLARS under what your Local Dealer would charge you, freight included, for all Millwork, Roofing, Building Paper, Paint, Screens, Sash, Doors—EVERYTHING that you need right NOW when the season begins. We Guarantee to save you HALF or more than half on all goods, like samples here, sent

DIRECT TO YOU PROMPTLY from LARGEST MILL IN THE WORLD

We have no second-hand goods at all—Make only the Highest Quality, Well Seasoned Goods—All our Millwork is up to Standard established by the Sash, Door and Blind Manufacturers' Association of the Northwest. You get the

SAME PRICES ON $1 ORDER OR $10,000 WORTH and SAVE HALF

Keep in mind that our Catalogs are Authorities on Millwork and Building styles. No matter where you live, realize that you can get what you need more promptly, at half or more savings, than your dealer or any other concern can supply you. They have to get their goods from us or some other manufacturer. We are the only Manufacturers or Mill selling direct to users at Mill Prices.

Remember that we will immediately send your

MONEY BACK ON ANY GOODS NOT EXACTLY AS REPRESENTED

We are a reliable, responsible concern—do just exactly as we say we will. Your home banker anywhere, or any business house can tell you that.

Established in 1865, we are doing business every day direct with users all over the United States. Our Millwork and all our goods are best made—of best material—by best workmen—in largest mill in the world—163,000 square feet (4 acres). As we own our own timber lands, saw mills, factories, and carry large stocks, we can ship promptly. (We don't sell rough lumber.) Buying direct through our catalogs, which explain and illustrate everything, you save all middlemen's profits.

SPECIAL PLANS AND BARGAINS for POULTRYMEN and TRUCK FARMERS

Before you plan any improvements in Colony Houses, Brooder Houses, Hen Houses, Out Houses, Houses, Barns or any building or repair work, write for our Free Millwork Catalog, which explains all about the best plans for any purpose. Don't forget that from a 2-cent paint brush—or 50 feet of paper at 33 cents—or a colony house door at 65 cents—to everything in Millwork for a $10,000 house, we can and will save you Half or More than Half—and we are the only concern that can. Investigate. Write to-day. It means DOLLARS SAVED and kept in your pocket for you.

Hot-Bed SASH $1.60

DEALER'S PRICE $3.50

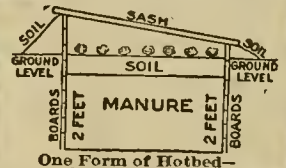
Including Glass Without Glass **92c**

NOW is the time to buy sash for your hotbeds or chicken houses and brooders. Hotbeds are easy to make like illustration below. Cost little. Pay big. You get our sash direct—

ALL READY TO USE

SAFE Delivery Guaranteed Anywhere

from the Largest Mill in America. No come apart to it. Best workmanship. Glass laps over to prevent leaks. Bars screwed on bottom rail. Sash glazed with putty and points. 3x6 feet. Higher Grade in all ways than dealers sell for double our prices.



One Form of Hotbed—Sectional View.

Flint-Coated Fire-Proof Rubber Roofing

Per Square, 108 Sq. Feet.

1 Ply—$1.41 per square
2 Ply—1.76 per square
3 Ply—2.29 per square

All you need is a hammer to lay it. Nails, metal caps and cement furnished FREE with each roll. Lasts a lifetime.

This Fine Window

4-light—strong—high quality window. Prompt, safe delivery guaranteed.

Sizes and full description given in FREE catalog. Costs you only . . .

60c

FREE
What is worth Roofing is worth Roofing well
Gordon Van Tine Co's
Flint Coated Rubber Roofing
Gordon Van Tine & Co.
Davenport, Iowa

These Two Catalogues

TWO BOOKS FREE

Just Write Us a Postal for Them Today

GORDON, VAN TINE & CO., 88 Case St., DAVENPORT, IA.

on some strawy manure for a mulch. Now when should I take this off? Should it be removed from the field entirely or should it be worked into the land as a fertilizer? The land is not very rich, as I have not had it long enough to manure it as it should be.

If the plants you set last September made a good growth last fall and start growing vigorously this spring, a light crop of strawberries will do them no injury. The strawy manure should be removed as soon as growth starts this spring, and the strawy parts should be left around the plants to keep rhe berries clean. The decayed matter may be cultivated into the soil between the rows. When necessary to irrigate make a furrow between the rows and run the water into these furrows. This is all that is necessary to insure you a crop of berries. After the berries are all picked, then the entire surface should be cultivated except where the plants are setting and enough plants allowed to set to make a double-hedge row.

Big, Red, Luscious Strawberries

There's class in any of these selections—Good Luck, Chesapeake, Virginia, Cardinal, New Glen Mary, Haverland, Dunlap, Marshall, Klondyke, Gandy, Bubach, Climax.

90 BEST STANDARD VARIETIES AT RIGHT PRICES

Send today for my handsome 1907 complete catalogue of small fruits and vegetables. Big stock of fine dewberries, raspberries, currants, gooseberries, grapes, choicest garden seeds, peas, beans, water melons, cantaloupes, tomatoes and cucumbers.

W. F. ALLEN, Dept. 58, SALISBURY, MD.

IRON AGE IMPLEMENTS

easily pay for themselves the first season, not only on account of the time and labor they save, but because they do better work and give you larger crops.

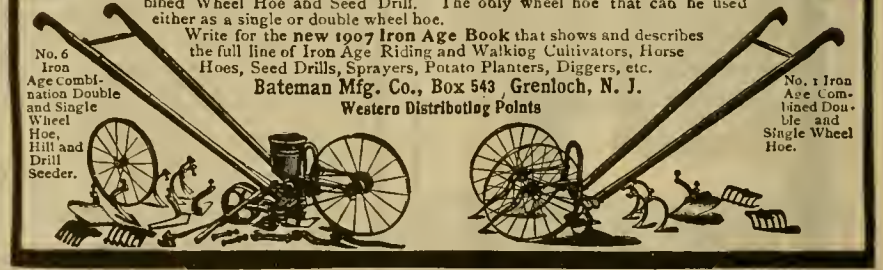
The **No. 6 Iron Age** combines a double wheel hoe, a single wheel hoe, and a hill and drill seeder. The most compact, practical and useful of all garden tools. Opens the furrow, sows the seed, covers and rolls the ground and marks the next row, in one operation.

The **No. 1 Iron Age** is the combined double and single wheel-hoe form of the No. 6 Combined Wheel Hoe and Seed Drill. The only wheel hoe that can be used either as a single or double wheel hoe.

Write for the **new 1907 Iron Age Book** that shows and describes the full line of Iron Age Riding and Walking Cultivators, Horse Hoes, Seed Drills, Sprayers, Potato Planters, Diggers, etc.

Bateman Mfg. Co., Box 543, Grenloch, N. J.

Western Distributing Points



No. 6 Iron Age Combination Double and Single Wheel Hoe, Hill and Drill Seeder.

No. 1 Iron Age Combined Double and Single Wheel Hoe.

CLASSIFIED ADVERTISING

Advertising in this department costs 3 cents a word. Numbers and Initials count as words. Cash must accompany order. No ad. accepted for less than 50 cents per insertion.

AGENTS WANTED, CHANCES, ETC.

MEN AND WOMEN—If you sell vermin powder, using spare time, you will never be without money. No poultry vermin, roaches, ants, waterbugs, etc., can exist where used. Big inducement. Write for proposition. Vermin Powder Co., Scranton, Pa. 4

$150 TO $300 a month to "pushing" agents (either sex). Steady employment in your own locality, $400 and upwards to high class state or general agents. A chance of a life-time. Write for full particulars to Jas. Charles, Richmond, Ind. 7

WE want one lady or gentleman to take orders and deliver for us, rapid seller, highest quality goods, sales in almost every house. Best of pay and no money required to carry on the work. We will send a proposition as soon as we hear from you, also sample pair of 6-inch sheers for 28 cents—stamps or silver. Write at once. United Shear Co., Westboro, Mass. tf

BOOKS AND MAGAZINES

DO YOU WISH to secure copies of the first volume of The Strawberry? If you do we are now in position to supply them. A notice inserted in the January issue offering $2 for a volume has brought offers of several sets. Only one was needed to fill the order. We shall fill all requests in the order received. They cost us $2 a set. Please remit $2.25 to cover postage. The Kellogg Publishing Co., Three Rivers, Mich.

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

DOGS, PETS, ETC.

CHOICE Fox Terrier Puppies for sale. They are nicely marked and sharp as tacks. No better house or rat dog ever lived. If you want a standard bred Fox Terrier at $4 for females and $5 for males, write at once. I guarantee satisfaction. Arthur Dicken, Route 7, Bellevue, Ohio. 5

FOR SALE—half blooded Scotch collie male pup 2 months old. Color, brindle. Price $5.00. R. L. Keith, Franklin Grove, Ill. 4

FARMS AND LANDS FOR SALE

CASH for your property wherever located. For quick sale send description and price. Northwestern Business Agency, 326 Bank Commerce building, Minneapolis, Minnesota. 4

IF YOU WANT TO SELL, trade or buy a farm, send full description of what you have or want, with 25 cents, to the Farmers' Want Journal, Dept. 88, Kansas City, Mo., and we will advertise it before 30,000 buyers and sellers and send you a copy of the paper. 4

STRAWBERRY FARMS and Country Homes in the Tidewater section of Virginia. Some beautiful waterfront properties. Wilcox and Goodenow, Norfolk, Virginia. 7

PLANTS AND ROOTS

RIDGEWAY'S STRAWBERRY PLANTS (Kellogg's Pedigreed strains) from mulched propagating beds. Shipped in May and June. Good true service. Several standard varieties. Small orders accepted. Ridgeway's Garden, Osakis, Douglas County, Minnesota. 5

MICHIGAN and Cobbler Potatoes, millions of vegetable and strawberry plants. Danish Cabbage Seed at $2 per lb., postpaid—cash. F. M. Pattington, Scipioville, N.Y. 4

PALMETTO Asparagus, strong two-year plants, 100, $1.00; 1,000, $4.00. Kansas Raspberries, 100, $2.00. C. Gould, Gilman, Ill., Route 2.

POULTRY, EGGS, ETC.

A WINNER." My White Wyandotte Pullet, by Lambert, scored 96¾. Stock and eggs from Duston strain for sale. Karyl Wright, Conneaut, Ohio. 5

BANTAM EGGS. America's Best. Send 2 cent stamp for circular. A. A. Fenn, Box 20, Burlington, Wis. 5

BARGAINS, stock or eggs. Thoroughbred Poultry, Ducks, Geese. 6,000 prizes, circular free. Charley Stolley, Milligan, Ind. 4

DICKEN'S WHITE ROCKS have fine, shape, size and color. I have some choice matings for this season, if you want birds of quality. Book your order with Dicken for White Rock Eggs; none better at any price. Ten chicks guaranteed from each setting. 15 eggs, $2.00. Arthur Dicken, Route 7, Bellevue, Ohio. 5

EGGS. Best strain White Plymouth Rocks, pure white, large birds, prolific layers. E. J. Kirby, Covert, Mich. 4

15 ROSE COMB Brown Leghorn Eggs, 75 cents. Henry Tiedemann, Hammond, Ind. 6

FOR SALE, White Leghorn, White Rock and Pekin Duck eggs for hatching, Collie Pups, Homer Pigeons. If you want something elegant and reasonable write The Michaelis Poultry Farm, Marinette, Wis. 6

ORPINGTONS, S. C. Buff and White, Blue Ribbon Winners, score to 95. Eggs, one setting, $3.00. Two, $5.00. Guaranteed to produce winners. Frank Crowell, Granger, Minn. 4

RHODE ISLAND REDS, Light Brahmas, White, Buff, Black and Barred Rocks, Buff, Silver, White and Golden Wyandottes, Brown, Buff and White Leghorns, Black Javas and Minorcas. Hardy, prolific, farm-bred, pure stock. For Birds, moderate prices, or "Eggs to Hatch" at 10 cents each, write Walter Sherman, Berry Patch, Newport, R. I.

PEDIGREE White Plymouth Rocks. Bred to lay. Blue Ribbon winners. Circular free. Tassie, 3036 Clinton Ave., Minneapolis. 5

PURE BRED POULTRY and Eggs of twenty kinds for sale, Barred and Buff Rocks, Pekin Ducks, Bronze Turkeys, Toulouse Geese, Bees and Fox Hounds a specialty. Enclose stamp for catalogue. J. Fred Foy, Redfield, Ia. 4

PURE bred Pekin ducks for sale, 650 selected breeders, Rankin-Hallock strain, fine birds. Eggs by 100 or 1,000. Golden West Duck Ranche, Joliet, Ill. 4

R. C. B. LEGHORNS. Every bird in pen laying in December. 15, $1.50. 2nd choice, $1.00. A. L. Gould, Gilman, Illinois. 4

ROSE COMB WHITE and Rose Comb Brown Leghorn Eggs, 15, $1.00; 39, $2.00. Jack Cook, Bluffton, Ind. 5

ROYAL BLUE BARRED PLYMOUTH ROCKS; Eggs for sale. A good hatch guaranteed. George W. Watson, Eldorado, Illinois. 4

STANDARD-BRED Prize-winning Barred Plymouth Rocks and S. C. Brown Leghorns. Eggs for hatching from both breeds. Young stock for sale. James W. Herndon, 119 Wood Avenue, Three Rivers, Mich. 4

TWENTY FIVE Breeds Geese, Ducks and Chickens. Catalogue free. Largest poultry farm in the northwest. Great Western Poultry Farm, Rural Route No. 4, Mapleton, Minn. 4

SECTIONAL CRATES

TUFTS' SECTIONAL CRATE. Neat in appearance. Well ventilated. No division racks. No mashed fruit. Displays fruit to best advantage—investigate. Free catalogue. Manufactured by Elmer G. Tufts, Aurora, Ind. 5

WATCHES

85 CENTS mailed to us will get you by return mail the Best Dollar Watch made. Stem wind and stem set and guaranteed for 1 year. A. Smith, Jeweler, 151 St. Joe St., Three Rivers, Mich. tf

Gathering and Marketing Strawberries

By Frank E. Beatty

WHILE I may be able to give some valuable suggestions on the marketing of berries, yet this branch of the berry business to a large degree must be treated in accordance with local conditions. The first suggestion I would offer has to do with grading and packing. No matter what the local conditions may be, it will pay the grower to exercise great care in packing each grade of berries separately. The grading can be done more successfully and more economically in the field by the pickers than in the packing house. The pickers should have about one-quarter of a cent a quart extra for this work. After pickers get accustomed to grading the berries they will gather almost as many quarts in a day as they could by throwing the berries into the boxes promiscuously. I always had my pickers gather the fancy berries first, and put them carefully into boxes, then before moving forward, they would clean the vines of ripe second-grade berries, putting these in a separate box, of course. I found that my pickers handled the berries with much more care after I adopted this rule of grading, because they were getting pay for this extra work, and the picker that could not do the work to my entire satisfaction could not pick berries for me.

The berries should be taken to the packing house or some shady place as soon after they are picked as possible, and whether the packing be done in a packing house, under a tent, or in the shade of a tree, some responsible person should be in charge of the work. Each box should be tipped enough to see if the berries in the bottom are as good as those on top. This is done by taking the box of berries in the left hand; then place the right hand over the top and gently turn the box partly upside down, or tip enough to see the berries which are at the bottom of the box. If found properly graded, reverse this movement, which will allow the berries to fall back to place without bruising them. If the berries are found poorly graded the number on the picking stand or carrier will show who picked them, and then word is sent out to the field foreman to look after the picker known by that number. When the pickers learn that their mistakes and poor work quickly can be traced to the guilty person they are more careful to do their work well. And the importance of this may not be overestimated.

Every quart of berries should be faced on the top by placing stem ends down, and each box should be full to the top. Long berries like Haverland should be laid on their sides. A good packer soon will learn to arrange each variety so as to make the berries show up to the best advantage. I often have been asked if it pays to spend time in packing second-grade berries, and my answer always is "Yes." It paid me and it will pay you also, but it will not pay to put better berries on top of the box or crate than those which are in the bottom in any grade of berries. Just take two quarts of second-grade berries, and arrange the top layer of one box nicely, leaving the other box just as it came from the picker. Then set the two side by side and note the great difference in appearance. Take these two boxes to the grocer or some family and ask five cents for the unpacked quart and eight cents for the quart with the top layer of berries arranged with the stems down, and see which sells first.

Just what plan to follow in marketing strawberries can best be determined for himself by each grower. Those who are located near a good home market will profit more by selling to home people, either through grocers or direct to families. I prefer selling through grocers and making settlement with them at the end of each week. In this way the returns are to be depended upon, while in selling from house to house some losses through poor accounts are certain to occur. If berries must be shipped, make arrangements with the best grocer in each nearby town, and give him the exclusive sale of your berries. When the dealer is assured that he has the exclusive sale, he will feel more like advertising and pushing the sale of your special brand of berries. Have it understood that you are to name the selling price, and if your berries are nicely backed you need not hesitate in making the price several cents a quart above the market for common berries. I found it a capital idea to advertise in local papers. By doing this most all of the second-grade and over-ripe berries may be sold from the farm. Families will purchase by the crate for canning and preserving.

Large growers who have ten or twenty acres may find it necessary to sell their berries through some commission firm. This is a very good way, provided a reliable firm can be found to take the exclusive sale of the farm's output. Any progressive and honest commission firm always will bid high for fancy and nicely packed berries, and if they will not purchase them outright they will agree to sell such fruit at a good premium above the market. The grower should give the commission firm to understand that he cannot have the sale of his berries unless he will hold up the price, and any good commission firm will do this because they know full well that grocers will pay a high price for high-grade berries. No matter how you market your berries, whether from house to house, through grocers or commission houses, arrangements should be made long before your berries are ripe.

Let me briefly repeat the suggestions on gathering and marketing berries:

1. Pick no berries until they are fully ripe, unless they are to be shipped some distance.
2. Do not allow pickers to pull berries from the vines. See that they pinch them off with the thumb nail, leaving a stem about one-half inch long. This will assist wonderfully in getting the berries to market in good condition.
3. Do not pick berries when the vines are wet if you can possibly avoid it.
4. Be sure and have the pickers put each grade of berries by themselves.
5. Do not leave berries in the fielda fter they have been picked.
6. Do not try to sort berries after they are picked. The extra handling will bruise and mash them. And

A STRAWBERRY FIELD IN THE HOOD RIVER VALLEY OF OREGON

nothing else will more quickly break down the market than will fruit in this condition.

7. Do not pack the quart boxes of berries in the crates until they are cool, and keep them in a cool dry place until ready to take them to market.

8. Never send berries to market without nicely arranging the top of each quart, whether fancy or second-grade, and see that they are the same all through the box.

9. Never allow several dealers to handle your berries in a small town. If you do, a cutting of prices surely will result.

10. Do not put two varieties in the same box or crate unless the berries are so nearly alike that the difference could not be detected.

I think that by combining these suggestions with your own ideas a good profit may be realized from your crop this season. Those who have been reading the "Autobiography" can see what difficulties I passed through before hitting upon a profitable plan for marketing my berries. I hope that in these articles the reader may receive many valuable suggestions on marketing as well as concerning other features of strawberry production.

Crop Outlook in the Southern Seaboard Strawberry Field

By F. L. M.

WITH the actual opening up of spring in the South much activity is being displayed on the splendid truck farms of eastern North Carolina and tidewater Virginia. These areas have long been famous for their early vegetables, but this year, if one may judge from present prospects, the crop is to be earlier and larger than ever before. The young plants already are far advanced and, unless some unforeseen disaster overtakes them or the season proves unfavorable, truckers in this section will have their products upon the Northern markets at an unusually early date. The warm winter has aided greatly in this work. The temperature has not only been high but very even—the most desirable kind of weather for pushing early vegetables.

These remarks apply to strawberries and other fruits quite as much as to vegetables. Though the strawberry outlook is quite bright, all reports indicate that the acreage will be considerably reduced from what it was last year—some say by 25 per cent. The farmers in some sections have, in the past several years, and particularly last year, suffered severe loss on account of lack of transportation facilities. Discouraged by inability to get their products to market promptly, they have this year reduced their acreage of berries and increased their acreage in other truck crops. In the Norfolk, Va. and Newbern, N. C. areas there has been a slight increase of acreage and larger shipments of the lus-

"Better Than Gas," SAYS THIS NEW YORKER.

"I have used The Angle Lamp far beyond the time set for trial and find that one cannot be too enthusiastic over it," writes Mr. Granville Barnum, of Cold Springs, N. J. "It certainly gives the brightest and at the same time the softest illumination one could desire.

"We lived in New York City for some years and used all the latest and most improved appliances, devices, etc. in connection with gas or electricity and yet I must sincerely urge the superiority of this simple yet wonderful method of illumination. One can hardly say too much in its praise."

—THE—

Angle Lamp

makes common kerosene the best, the cheapest and most satisfactory of all lighting methods. Safer and more reliable than gasoline or acetylene, yet as convenient to operate as gas or electricity.

The Angle Lamp is lighted and extinguished like gas. May be turned high or low without odor. No smoke, no danger. Filled while lighted and without moving. Requires filling but once or twice a week. It floods a room with its beautiful, soft, mellow light that has no equal. **Write for Our Catalog "54" and** our proposition for a

30 DAYS' FREE TRIAL.

Write for our catalog "54" listing 32 varieties of The Angle Lamp from $1.80 up, now—before you turn this leaf—for it gives you the benefit of our ten years' experience with all lighting methods.

THE ANGLE MFG. CO., 78-80 MURRAY STREET, NEW YORK.

SPRAYING STRAWBERRIES

Potatoes, Vegetables, Trees; White-washing, etc., quickly and effectively done with the new

"KANT-KLOG" SPRAYERS

Spraying time will soon be here. If any of your neighbors are likely to purchase sprayers this spring, send to us at once for booklets and we will tell you how to get your sprayer free.

ROCHESTER SPRAY PUMP CO.
12 East Ave., ROCHESTER, N. Y.

The BURPEE IDEA is "to try all things, hold fast to those that are good,—and then make them better!" If you would have pleasure or profit from your garden you should plant

the BEST SEEDS that Grow!

Shall we mail you a copy of **"The Leading American Seed Catalog"**? It is an elegant book of 200 pages and is mailed only to those who can appreciate the **BURPEE QUALITY in Seeds.** Most Important Novelties for 1907,—including the two most remarkable **"New Creations,"**—which can be had only direct from us. **Write TO-DAY!**

W. ATLEE BURPEE & CO., Seed Growers, PHILADELPHIA, PA.

A SWEET CHESTNUT TREE

To get this valuable **"Blizzard Belt"** Chestnut quickly introduced and at same time gain new friends, we offer to send a **Hardy Sweet Chestnut** tree 1 year old, entirely **Free** to a limited number of property owners not already our customers. Mailing expense 5cts which send or not as you please. A postal will bring the tree. Our **Catalog** containing 64 colored plates of our **"Blizzard Belt"** Fruits, Ornamentals, Evergreens, etc., and a mine of valuable information for fruit-growers is free. Write today.

The Gardner Nursery Company, Box 802, Osage, Iowa.

Pedigreed **Strawberry Plants** Extra Choice

For the family garden. A quart to the plant of big red berries. Twenty years' experience growing strawberries. Booklet, "Strawberry Culture," free.

CHARLES S. WILLEY - - East Patchogue, L. I.

Save Your Trees

Kill San Jose scale and other destructive parasites with a spraying solution of

GOOD'S Caustic Potash Whale-Oil **SOAP NO. 3**

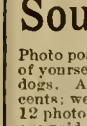
Sure death to insects. No sulphur, salt, mineral oils, or any substance harmful to plant life. Endorsed by U. S. Dept. of Agriculture. Pocket Manual of cause, treatment and cure of tree diseases, free. Write today.

JAMES GOOD
Original Maker, 935 N. Front St , Philadelphia

Souvenir Post Cards

Photo post cards from your photographs. Send **photo** of yourself, home, flower beds, favorite horses, or pet dogs. Accompany order with **photograph** and 75 cents; we do the rest, returning your photograph with 12 photo post cards reproduced from the photo, postage paid. Reference, The Strawberry.

MRS. J. H. PRATT, Three Rivers, Mich.



MAKE MONEY CANNING FRUIT
for others. They'll pay high cash prices. Send for free, money-making catalog. Tells all about costs and profits made with our canning outfit. Send now. Begin to reap profits this season.
MODERN CANNER COMPANY,
Dept. M. Bridgeport, Alabama.

NATURE'S RIVAL BROODERS

THE Brooder that rivals nature because it has a hover as natural as an old hen. Send today for my circular explaining why they raise more and stronger chicks than other Brooders, also why **they cost you only 75c to $1.00 each.**

S. G. ROBINSON, Jr., Inventor and Patentee, R. F. D 7, West Toledo, O.

cious berries may be expected from this territory.

In the great berry section around Chadbourn, N. C., also, there will be only slight reduction in acreage. At that point individual shipments are large and in some respects the facilities for handling the berries recently have been improved. For instance, a new refrigerating plant has been built at Chadbourn for the special purpose of a larger supply of ice for refrigerator cars during the berry season. The crop at present is in splendid condition, and the prospect is for a large yield in this territory.

Last year it required 2,600 cars to handle the berry crop in eastern North Carolina, and the number required would have been greater had the truck growers been able to get help enough to pick all the berries. It has become a problem in some sections of North Carolina to get help during the berry season. The first shipment of berries last year was on the 5th of April, and the season lasted from then until about the 10th of May. The greatest shipment last year in one day was 212 cars. The railroads already have begun to make preparations properly to handle the crop, and it will not be many days now before refrigerator cars will be seen on all the sidetracks in that great strawberry field. Last spring when the season opened fourteen hundred cars were within the territory ready to be loaded.

Nowhere else may be found soil and climate better adapted to the culture of strawberries for the Northern markets than in that vast extent of territory stretching from Norfolk, Va. to the southern limits of North Carolina. It is only within comparatively recent years, however, that this fact was discovered and the culture of berries for market begun on any considerable scale. Even now the industry is in its infancy. With ten months in the year in which there is no frost, with a soil that is in every way ideal for the growth and culture of the early berry, one has here every advantage that nature can give. It would be strange, therefore, if it should not become the greatest strawberry growing territory in the world.

Norfolk, Va.

WRITING on the "Garden of Small Fruits" in Suburban Life, Prof. Samuel T. Maynard of Massachusetts says that "No other fruit is so distinctly a home fruit as the strawberry. It is one of the most prolific fruits, yielding sometimes as high as one hundred quarts to the square rod, though the average yield under good, ordinary conditions may not be more than from twenty-five to fifty quarts per rod." On the much-discussed question of fall-planting of strawberries, we are glad to note that Professor Maynard ranges himself squarely on the side of the question taken by The Strawberry. He says on this point: "Fall planting is often recommended, and while some good fruit may be obtained in this way, and it is better to plant at this time than not at all, there will be little or no profit, while there should be considerable from spring-set plants."

The Compulsory Marking of Fruit Packages

OREGON has taken a step in the right direction and one which will be, in the ultimate, of as great advantage to the fruit-grower as it will be to the general public. From the Fruit-Grower we learn that the Oregon legislature has enacted a law under which every fruit package sent out from that state must bear the name of the packer, and if grown by any person other than the person packing it, the package must also bear the grower's name. This law applies to shipments made within the state as well as those sent to other states. This law becomes effective three months after the present legislature adjourns.

The passage of this law is a part of a general plan to provide a guarantee of the quality of the Oregon fruits. It is desired that every package of fruit shall stand on its own merits, and the grower and packer of it shall assume responsibility for its quality. The bill was introduced by J. W. Perkins of Medford, one of the best fruit-growers in America.

For many years recommendations have been made by experienced fruit-growers to the effect that "all fancy fruit should be shipped in packages bearing the grower's name or trademark, but that low-grade stuff should be marked in plain packages, and sold for what it will bring." How many times we have heard this recommendation made at horticultural meetings. And now the Oregon law says, in effect, that one should not market any fruit which is not worthy to bear the name of the

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

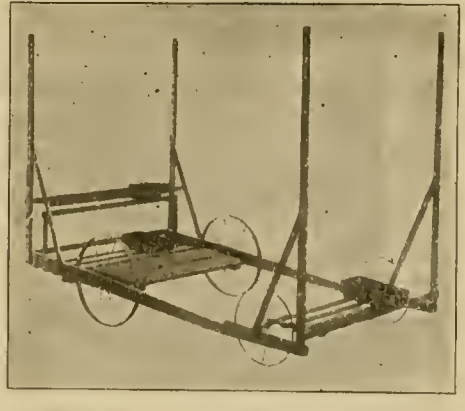
THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

Webster's Picker's Chariot



This Chariot is used for finger-weeding, layering runners, removing blossoms and picking.
It will carry 32 boxes.
Weighs 38 pounds; size, 3 feet by 5½ feet.
One picks and carries all berries in the shade.

PRICE:

SINGLE CHARIOT -	$ 4.50
TWO CHARIOTS FOR	8.50
THREE CHARIOTS FOR	12.50

Special prices on larger quantities.
Anyone buying a chariot not satisfied after one day's trial can return same at my expense when all money paid will at once be returned.

GEO. WEBSTER, Christiana, Pa.

grower. If you are not willing to own up to its production, then don't market it.

It will be interesting to note the effect of this law. It will doubtless have a tendency to make growers more careful as to the quality of fruit they send to market. It will not affect the fruit sent out from Hood River, Medford and those other places where the shipping associations have such stringent regulations, but it will call a halt in those localities where the growers are not so particular.

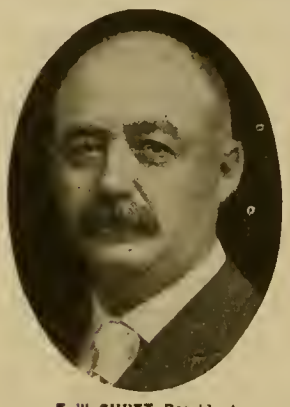
⚜ ⚜

IN an address before the Western New York Horticultural Society at its recent meeting, O. G. Bishop of Pontiac, Mich., himself a successful originator and improver of varieties of small fruits, declared that "quality's the thing in small fruits," and proceeded to offer suggestions that open up delightful vistas to all fruit-growers and point the way to better things. He said that progress must come from new varieties or the improvement of old ones. He believes propagation from the best to be found among our present varieties more important than the originating of new varieties. Variations are always taking place, and the growers should be on the lookout for variations that show an improvement. Change of environment and high culture are both very apt to cause variations. Fix on an ideal and breed to it, selecting each year from the best and you will be surprised at the results and surprised how critical you will soon become in noticing these variations and improvements. Select from an ideal plant rather than from ideal fruits, as an ideal fruit may be the only one borne on the plant and a plant bearing nearly ideal fruits in quantity and showing the plant to be strong and vigorous is much to be preferred as a parent.

⚜ ⚜

WITH the assurance that every member of The Strawberry family will be vitally interested in it we call attention to the extraordinary catalogue and offers of Gordon, Van Tine & Co., the largest manufacturers of sash, doors, blinds, windows, and all lines of millwork in the world. In one word, this company sells to its customers everything that enters into house or barn construction at prices just one-half those they would be compelled to pay elsewhere. How can they do it? That is a perfectly natural question, when one considers their wonderful offer; but the answer is simple. In the first place, Gordon, Van Tine & Co. own the timber land from which come the raw materials they make up into myriad forms. They own and operate the sawills that reduce the timber into workable shape, and they own and operate the splendid factory at Davenport, Iowa, where the lumber is turned into the complete line of millwork stuff for which this company has become famous. These are advantages which readily are appreciated and indicate with what degree of economy the finished products may be turned out when thus organized. But this is not all. The company has organized its selling department on an up-to-date, systematized basis, so arranged that the consumer gets all the benefits of intermediate profits. Indeed, it eliminates all intermediate profits, because it eliminates the middleman en-

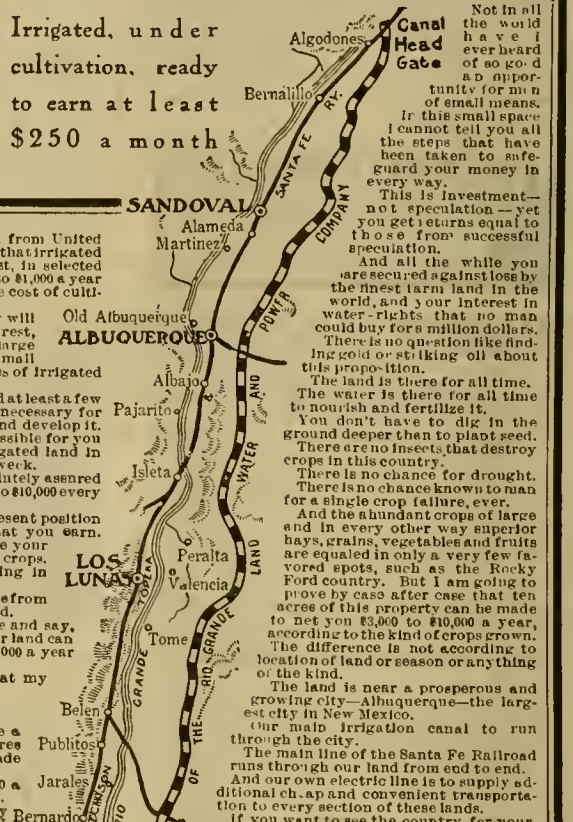
Let Me Prove That
10 Acres of this Irrigated Land
Can earn $250.00 A MONTH For You



E. W. SHUTT, President
Rio Grande Land, Water & Power Co.

I Will Sell It To You For $2.50 a Week

Irrigated, under cultivation, ready to earn at least $250 a month



YOU know, or can easily learn from United States Government Reports, that irrigated lands in the Great Southwest, in selected crops, are made to net $300 to $1,000 a year per acre over and above the entire cost of cultivating them.

Anyone who knows the country will tell you that absolutely the surest, safest way in the world to gain a large and permanent income for a small outlay is to get hold of a few acres of irrigated land in the Great Southwest.

But always before it has required at least a few hundred dollars and it has been necessary for the investor to live on the land and develop it.

Now, my company makes it possible for you to get ten acres of the finest irrigated land in the world if you can save $2.50 a week.

You can go and live on it—absolutely assured that it can be made to earn $3,000 to $10,000 every year without fail.

Or you can remain in your present position and add almost that much to what you earn.

For my company will cultivate your property for a small share of the crops.

You don't have to know a thing in the world about farming.

Now, I can and will prove all this from the highest authorities in the land.

All you have to do is—write me and say, "Prove to me that ten acres of your land can be made to net from $3,000 to $10,000 a year above all cost of cultivating it."

I have the proof, so read what my company will do for you.

* * *

I will deliver to you at once a Secured Land Contract for ten acres of irrigated land in the Rio Grande Valley.

You must pay my company $2.50 a week or as much more as you like.

Instead of your having to pay interest on deferred payments, I agree, for my company to pay you 5% per annum on the money you pay in.

I also bind my company to fully irrigate your land and turn it over to you under full cultivation whenever you desire to mature your contract.

$2.50 a week will mature your contract in 10 years.

But after you have paid $2.50 a week for three years, or the same total amount in a shorter time, I agree and bind my company to lend you enough money to make all future payments and mature your contract.

Remember, the land will be fully irrigated and completely under cultivation, so your first year's crop should net you enough over and above the cost of cultivating it to fully pay your loan.

You would then own land outright that can be made to net you $3,000 to $10,000 a year.

Can you hope in any other way as safe and sure as this to have so large an income in a few years!

Not in all the world have I ever heard of so good an opportunity for men of small means. In this small space I cannot tell you all the steps that have been taken to safeguard your money in every way.

This is investment—not speculation—yet you get returns equal to those from successful speculation.

And all the while you are secured against loss by the finest farm land in the world, and your interest in water-rights that no man could buy for a million dollars.

There is no question like finding gold or striking oil about this proposition.

The land is there for all time.

The water is there for all time to nourish and fertilize it.

You don't have to dig in the ground deeper than to plant seed.

There are no insects that destroy crops in this country.

There is no chance for drought.

There is no chance known to man for a single crop failure, ever.

And the abundant crops of large and in every other way superior hays, grains, vegetables and fruits are equaled in only a very few favored spots, such as the Rocky Ford country. But I am going to prove by case after case that ten acres of this property can be made to net you $3,000 to $10,000 a year, according to the kind of crops grown.

The difference is not according to location of land or season or anything of the kind.

The land is near a prosperous and growing city—Albuquerque—the largest city in New Mexico.

Our main irrigation canal to run through the city.

The main line of the Santa Fe Railroad runs through our land from end to end.

And our own electric line is to supply additional cheap and convenient transportation to every section of these lands.

If you want to see the country for yourself, you can go with the next party I take to look at the property. Or you and your friends can band together and send a representative.

Or I will send you names of prominent men who have gone or will go and you can ask them what conditions they find.

But this is the merest outline of what I will show you in detail.

There are many features of this Secured Land Contract that make it safe and profitable which I haven't space to touch upon.

I am only attempting to make it clear to you that if you can possibly save $2.50 a week you can buy land that can be made to net you a three to ten thousand dollar income in a few years.

Don't doubt—I have proof.

I have promised to lay it before you. All you have to do is to write for it—that can't cost you a cent more than postage.

And as fast as the mails can carry, I will send you proof that as sure as crops grow where climate, soil and water conditions are perfect, you can be financially independent in a few years.

* * *

Now, not to hurry your decision in the least, but to protect the price, write me personally at once. For after the first lot of ten acre tracts is contracted for we will ask more. But I make this promise. Every man or woman who answers this advertisement at once can have at least ten acres on these terms unless, of course, all our land should be already contracted for from this one advertisement.

Now, write at once. I can say nothing more in this advertisement except that, if I could, I would not tell you all you can confidently expect from this investment. For you would not believe it without the proof which I cannot put in an advertisement. Address me personally, and believe me sincerely,

E. W. SHUTT, Pres. Rio Grande Land, Water & Power Co., 634 Houser Bldg. St. Louis, Mo.

THE DICKY STRAWBERRY

The best one to plant with the Cardinal. A **Strong, Vigorous, Healthy, Staminate** variety. Fancy fruit, great cropper. Send for circular and price list.

C. S. PRATT, READING, MASS.

"SARATOGA"
THE NEW STRAWBERRY

Introduced this season: with a record of 5918 quarts per acre at one picking in 1906, under the same culture given entire field of many varieties by the originator. Fully described in catalogue with many other new and all the best standard varieties. Write for catalogue today and buy your plants of a specialist.

GEO. R. SCHAUBER, Box S, Ballston Lake, N.Y.

TWO PIANOS! CASH! BIG PRIZES FREE!

If this chart gets destroyed another printed upon heavy paper will be sent upon receipt of 2c stamp for postage.

CONDITIONS—50 cents pays for a year's subscription to SUCCESSFUL FARMING and one count; $1.00 pays for two years and three counts and makes you eligible for the special $50.00 prizes given to winners of its prizes if they have three counts. See below.

AWARDS will be made as follows—The person giving correct or nearest correct count will get first prize. Next nearest second, etc.

$50 PRIZES—We believe everybody should have three counts so they can have one each side of what they think is correct to be more sure to hit it. To encourage this we will give $50.00 extra to winners of 1st prizes if they have three counts. Remember if you have one count you get piano only, but if you have three counts you get $50 extra.

TIME PRIZES—$25.00 Extra. We feel early counters should be rewarded and we will give $25.00 extra to the person winning piano if count is mailed by May 15th.

OUR RESPONSIBILITY—We are a responsible business house, and every prize must be and will be paid as stated. We refer to Iowa National Bank, Central State Bank, German Savings Bank; in fact any Bank, Express Company, business house or individual in Des Moines, as well as Dun or Bradstreets Agency, or the publisher of this paper.

JUDGES—We have wholly disinterested judges to award prizes. Here is what they say:

TO WHOM IT MAY CONCERN: We have been asked by the publishers of SUCCESSFUL FARMING to act as judges in their contest and see that prizes are all awarded fairly. This we will gladly do guaranteeing each contestant absolute fair treatment. Signed—W. W. MORROW, Treasurer State of Iowa; HUGH BRENNAN, Judge District Court; Rev. A. J. WILLIAMS.

In case of tie we will write each person so tied asking them to make as few words as possible from the letters of the alphabet, using each letter of the alphabet twice and only twice, and no one word more than once, each letter left over counting as one word. To the one tied in the counting who gives us the fewest words as above will be awarded first prize. This practically eliminates all question of tie, but if there should by any possibility be a tie in this the prize will be divided equally between those so tying.

Subscription without counts is 25 cents per year, additional counts after you have three entered as per our terms in paragraph "condition" above may be entered at 25 cents each.

This contest is not to be confused with the guessing or estimating contests. Our contest is a test of skill in planning and counting and the best person wins. Nobody connected with our paper will be allowed to compete. Contest closes June 30, but get your counts in at once. See about time prize above.

CAN YOU COUNT THESE DOTS?

SUCCESSFUL FARMING WILL GIVE TO THOSE WHO CAN COUNT THE DOTS IN THE PIANO CORRECTLY OR NEAREST CORRECTLY, THE FOLLOWING LIST OF PRIZES: CAN YOU DO IT?

Two Elegant Pianos, one to a lady and one to a gentleman.
2nd. Two Hundred Dollars Cash.
3rd. One Hundred Dollars Cash.
4th. Fifty Dollars Cash.
5th. Twenty-five Dollars Cash.
Next 5. Ten Dollars Each.
Next 10. Five Dollars Each.
Next 25. Two Dollars Each.

CONDITIONS: 50 cents pays for one year and one count. $1.00 pays for two years and three counts. You get $50 extra if you have three counts. It will pay you to have three. See conditions below.

DON'T DELAY!

IF YOU WANT A PIANO OR OTHER PRIZES FREE SEND YOUR COUNTS AT ONCE

PRIZE WINNERS IN PAST CONTESTS

A Piano for $1.00. Surely people may enter your contests knowing that they will receive fair treatment. How glad I was to win a piano for so small an amount and wholly unexpected. The paper alone is worth all I paid.
MRS. L. W. NOTT, Marion, Ia.

He Won a Piano. Refer people to me if they want to know whether you are honest. I got a piano for a prize and never heard of you until I answered your ad. Your paper is worth twice the subscription price. W. C. ELLIOTT, Audubon, Iowa.

$100.00 Prize. I got my $100 and it was the easiest I ever earned. The dots are hard to count but I know the prizes go to those who win them fairly.
AMY R. BARNES, Van Horn, Iowa.

Won $350 Cash. To Whom It May Concern: I won grand prize of $350 Cash in last contest. I was much surprised. I want to vouch as to Successful Farming's fairness to any and everybody. JOHN A. GOODWIN, Richmond, Va.

$50.00 for Canada. Way up here in Canada I won $50. I never knew there was such a paper until I answered ad, now I will never be without it again. MISS E. FORNIER, Mantane, Quebec

Won a Piano. I received the elegant piano which I won in your recent contest, and all was perfectly grand. I am recommending you to all my friends and you are at liberty to use my name as reference any time you wish. ISAAC SHOTWELL, Rockland, Ohio.

A PIANO

MRS. L. W. NOTT, Marion, Iowa.

A PIANO

W. C. ELLIOTT, Audubon, Ia.

$50.00 CASH

EUGENIE FOURNIER, Matane, Quebec.

OTHERS WHO HAVE WON:

Pianos—Myra A. Fursman, Panola, Ill. E. L. Jones, 82 Cottage Ave., Ansonia, Conn. Mr. Libbie Greulick, St. Paul, Minn. W. S. Keever, 817 Freeman St., Cincinnati, O. J. Oemechlich, Kensington, Kan. Edith Hutchinson, Leonard, North Dakota.

$100 Eva I. Buckner, Fredonia, Kas. C. S. Wyman, Vinton, Iowa. E. M. Hall, Montrose, Mo. J. W. Smith, Rome, Okla.

$50 S. Irving Steyer, 225 E. Balt. Baltimore, Md. L. F. Stinson, Arcata, Calif. A. J. Perdue, Altoona, Ia. Albert Peterson, Holdrege, Neb. Chas. McBride, Peoria, Ill. Jos. Unser, Bellevisw, O. Mrs. D. H. Stoner, Granger, Ia.

THESE ARE BUT A FEW OF MANY. WE COULD GIVE A LIST OF HUNDREDS. YOU MIGHT AS WELL BE A WINNER IF YOU DO AT IT AT ONCE.

Publisher SUCCESSFUL FARMING, 443 Tenth St., Des Moines, Iowa.

I enclose $.....for subscription to SUCCESSFUL FARMING, and I wish to enter the.....(write ladies' or gents') Contest. If $1.00 is paid send three counts; if only 50c is paid send ONLY ONE count. The extra $50.00 go only to those having THREE or more counts entered.

My count is: (1).....(2).....(3).....

NAME.....

P. O.....State.....

Address all letters to SUCCESSFUL FARMING, 443 Tenth, St., Des Moines, Iowa.

tirely, and the goods go from factory to consumer direct. Selling for cash, honest customers are not compelled to make up losses sustained through bad accounts, as is true in so many cases. There you have the why and how of it in a nutshell. The catalogue of this company is the most complete of anything of the kind ever published. It tells you how you can build a house or barn or green-house or poultry house or pigpen for half the usual cost, and Gordon, Van Tine & Co. back it up by selling you the goods on that basis. Write to-day for the catalogue, addresssing Gordon, Van Tine & Co., 88 Case-St., Davenport, Iowa. 'Twill pay you well.

WE present to our readers' attention this month something about "Bonora", a new and wonderful fertilizer that has been used with large success by many prominent growers throughout the United States. It is highly endorsed by Luther Burbank, Eben E. Rexford and many others. Bonora is well worthy of a trial. The manufacturers are well known and prominent people. Read the advertisement carefully, and if endorsements and further information is wanted address, mentioning The Strawberry, Bonora Chemical Company, 488 Broadway, New York.

THE "Kant-Klog" nozzle of the Rochester Spray Pump Co. has won an enviable fame for its effectiveness, and the sprayer to which it is attached is one everybody is proud to own, so fine and handsome and durable is it. This company makes a full line of excellent sprayers and will be glad to furnish full information to Strawberry readers if they will send their addresses to the Rochester Spray Pump Co., 12 East-Ave., Rochester, N. Y.

THE STRAWBERRY especially urges the importance to its flower-loving friends of its great Groff's Hybrid Gladioli-bulb gift offer.

O. L. Chase.
St. Louis, Mo.

I Am the Paint Man

2 Full Gallons Free to Try—6 Months Time to Pay

I Guarantee Freight Charges.

I AM the paint man. I have a *new* way of manufacturing and selling paints. It's unique—*it's better*. It revolutionized the paint business of this country last year.

Before my plan was invented paint was sold in two ways — either ready-mixed or the ingredients were bought and mixed by the painter. Ready-mixed paint settles on the shelves, forming a sediment at the bottom of the can. The chemical action in ready-mixed paint, when standing in oil, eats the life out of the oil. The *oil* is the very life of all paints.

Paint made by the painter cannot be properly made on account of lack of the heavy mixing machine.

My paint is *unlike* any other paint in the world. It is ready to use, but not ready-mixed.

My paint is made to order after each order is received, packed in hermetically sealed cans with the very day it is made stamped on each can by my factory inspector.

I ship my thick pigment, which is double strength, freshly ground, in separate cans, and in another can, I ship the pure, old process Linseed Oil—the kind you used to buy years ago. Any child can stir them together.

I sell my paint direct from my factory to user you pay no dealer or middleman profits.

My $100.00 Cash Guarantee

I guarantee, under $100 Cash Forfeit, that the paint I am offering you does not contain water, benzine, whiting, or barytes—and that my Oils is pure, old-fashioned linseed oil and contains absolutely no foreign substance whatever.

I guarantee the freight on six gallons or over.

My paint is so good that I make this wonderfully fair test offer:

When you receive your shipment of paint, you can use *two full gallons*—that will cover 600 square feet of wall—two coats.

If, after you have used that much of my paint, you are not perfectly satisfied with it in every detail, *you can return* the remainder of your order and the two gallons will not cost you one *penny*.

No other paint manufacturer ever made such a liberal offer.

It is because I manufacture the finest paint, put up in the best way, that I can make this offer.

I go even further. I sell all of my paint on *six months' time*, if desired.

This gives you an opportunity to paint your buildings when they need it, and pay for the paint at your convenience.

Back of my paint stands my Eight-Year officially signed, iron-clad Guarantee.

For further particulars regarding my plan of selling, and complete color card of all colors, send a postal to O. L. Chase, St. Louis, Mo. I will send my paint book—the most complete book of its kind ever published—absolutely free. Also my instruction book entitled "This Little Book Tells How to Paint" and copy of my 8-year guarantee.

O. L. CHASE, *The Paint Man.*
Dept. 50 St. Louis, Mo.

NOTE—My 8 Year Guarantee Backed by $50,000 Bond.

NEW SOUTH WALES

AUSTRALIA,

OFFERS A WELCOME

THE wealthiest, most progressive and most prosperous state in Greater Britain, with an area of 310,000 square miles, and 20,000,000 acres of virgin wheat land within the 20-inch rain belt.

To the Emigrant Settler, to the Rural Laborer and to the Capitalist.

Emigrants Sound in Health, and Skilled in any Industry

Will Be Assisted.

The New South Wales climate is kind to the farmer, and wheat is produced there more cheaply than in any other country in the world. The great range of climate possessed by the State, permits almost every known crop to be raised.

A young country, close to the teeming East, with a fast growing population and rapidly expanding industries, and the converging point of many important trade routes, New South Wales offers many avenues of activity for the capitalist.

New South Wales produced last year $230,000,000. The men engaged in the Primary Industries produced $875.00 per head. New South Wales has many entrancing tourist resorts, great natural wonders in the limestone caves, and the oldest land surface on the globe in Mt. Kosciusko.

Full information, handbooks, etc., may be obtained on application to

THE DIRECTOR, Intelligence Department, SYDNEY, N. S. W.

OUR THOROUGHBRED PEDIGREE STRAWBERRY PLANTS are going off "like hot cakes." At this date a large number of our varieties are completely sold out. This is to notify our friends and patrons who have not as yet filed their orders that they should do so at once; also that in doing so they give us liberty to substitute varieties still in stock. We still can fill orders for Excelsior, Clyde, Warfield, Glen Mary, Thompson's No. 2, Beidler, Senator Dunlap, Pride of Michigan, Brandywine, Dornan, Marshall, Sample, Stevens' Late Champion.

R. M. KELLOGG COMPANY, THREE RIVERS, MICHIGAN

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

MEMBERS of the Correspondence School are to be congratulated upon the extremely interesting nature of the questions which will occupy the time of this session. It is remarkable how many questions arise in the work of strawberry production when a field which extends from the Atlantic to the Pacific and from the Gulf of Mexico to Alaska is considered; and that is the size of the field covered by this school of ours And yet scarcely a question is asked by one member which does not possess interest for every other, even though the conditions of soil, climate and market vary so widely. Here is a letter from one member whose home is in Perth County, Ontario, in which he says:

I have received every number of The Strawberry since first it was published, and have read and re-read all the numbers. It has been a great help to me as a beginner in the business. I have kept all of the numbers together for the year and am going to have them bound in a book, and will continue to follow this course from year to year. Soon I shall have a regular encyclopedia on strawberry theory and practice.

Thus the influence of the school is not only widespread, but it is permanent in its nature.

What so many of our members already are doing we hope other members will imitate, as we desire that every member of the school shall feel that this department belongs to him equally with every other, and that it is the highest pleasure of the instructor to answer questions as they come to him. Send in your questions; send them in in regular order and numbered so that each question will be in a paragraph by itseif, and try to have them reach us by the 10th of the month preceding date of issue, as the number of copies of The Strawberry printed is increasing so rapidly that we have to put forms to press very early in the month. Remember that it takes a question to draw out the answer. Therefore the questions are quite as essential as the answers themselves.

A. J. F., St. Louis, Mich. Would ground that raised sugar beets last season be suitable for strawberries? It is free from grass or weeds.

2. What would you think of the refuse beet pulp from a sugar factory as a fertilizer?

3. Would leached ashes be of any value to the soil?

4. Would the waste lime from a sugar factory be beneficial to the soil?

We have never grown strawberries on land where beets have been grown, but see no reason why the beets should not put the ground in ideal condition for strawberries. Prepare the ground thoroughly and get it in good condition. Then set well developed plants and give them good care, and we are sure the results will be entirely satisfactory.

2. We would not recommend beet pomace or the refuse from beet pulp as a fertilizer.

3. Leached ashes contain some value as a fertilizer. The leached ashes can be applied at the rate of 100 bushels per acre.

4. Lime of any kind is good for sandy loam, but it is not good for clay or stiff soil.

T. T., Cleveland, N. Y. I plowed up my old bed, put on a good coat of manure, plowed under a good crop of buckwheat, (wanted to sow to rye, but could not get the seed). Do you think it will need anything more before setting plants?

2. I put on one acre a ton of phosphate in the spring; had a good big crop of berries. Can I get as good results by using eighty or one hundred pounds of nitrate of soda as I did with that amount of phosphate?

3. I sow my phosphate on the plants and sweep it off with a broom. Will it do to use nitrate of soda the same way?

4. Will it do to use Pride of Michigan and Klondike to fertilize Sample, and Klondike and Ridgeway for Downing's Bride? What male plants would you use with Crescent and Warfield?

As you have plowed under so liberal a dressing of manure and a crop of buckwheat, it will not be necessary for you to use any more fertilizer, unless it would be to put 500 pounds of Mapes fruit and vine manure, which can be purchased from the Mapes Peruvian & Guano Co., 143 Liberty st., New York City, N. Y.

2. We doubt if nitrate of soda will give you as large returns as the one ton of phosphate. We presume that you worked the phosphate into the soil before setting the plants. One hundred pounds of nitrate of soda, scattered directly over the row when the foliage is dry, will increase the yield of berries wonderfully. One-half of it should be applied when growth starts in the spring, and the other half before buds open.

3. If you are careful when scattering the nitrate of soda, it will not be necessary to brush it off the foliage. We always aim to throw it on the bare space between the plants. Of course, if the plants grow very thick in the row, this would be impossible, and in such a case it would be well to go over the rows with a broom, or something of the kind, to jar the soda off the plants before it dissolves.

4. By setting Sample in rows between Klondike and Pride of Michigan it will be perfectly mated. And Downing's Bride set in rows between Klondike and Ridgeway will be perfectly mated. Crescent will do best when set between such varieties as Splendid and August Luther. Warfield should go between Texas and Senator Dunlap.

J. J. F., Slayton, Minn. I have about two acres to set this spring to strawberries, all being well. About one acre was garden last summer, which was covered with a heavy coat of stable manure before cropping, and this winter I am giving it a coat of poultry droppings. One acre was clover and timothy stubble plowed under and sown to buckwheat. When this was in bloom, I gave it about three to four tons of composted manure and plowed all under, seeding to rye; but the rye did not do well on account of drouth. I am intending to give this a light sprinkling of hen droppings and plow again, then put in condition for setting berries. Am I right or wrong in my plan?

2. What varieties would you advise setting this ground with? Would prefer late varieties that I could set in single-hedge row, as help is hard to get.

3. Could I harvest a crop of cowpeas from land, then get second crop large enough to plow under? Have two acres I would like to get ready in this manner. Land is all good, and of the black sandy loam quality. I propose to follow the directions of The Strawberry, and I believe with its aid I can make a showing this season.

From what you tell us of your two acres, it should be in splendid condition for strawberries. We would suggest that you apply the fertilizer from the chicken coops very sparingly this winter, then work all manures thoroughly into the soil next spring before setting the plants.

2. Inasmuch as you have made your ground quite rich, we will suggest varieties that thrive in such soil. August Luther, Clyde, Warfield, Haverland, Splendid, Pride of Michigan and Bubach. These varieties should give you exceedingly big crops of fancy berries.

3. We doubt very much if you could harvest one crop of cowpeas and then get another crop sufficientty large to do any particular good. However, you could harvest the first crop, and even if the second crop did not make much growth, the roots and stubble of the first crop would

greatly improve the mechanical condition of your soil, as well as add quite a little nitrogen that the peavines would draw from the atmosphere.

J. C. D., Lakeport, N. H. I understand my Brandywine and Aroma will pollenize only the later bloom of my Haverlands. Now my plants are under a heavy mulch. Why can't I leave the mulch on my Haverlands a few days longer than I do on my Brandywine and Aroma. That would make the Haverland a few days later. If I am right, how many days later should I keep the mulch on the Haverland than I do on my Brandywine and Aroma? Last fall I put a good coat of manure on my strawberries after the ground was frozen.

2. Would it be a good plan to put on some hard-wood ashes as soon as they commence growing in the spring? Will ashes do any damage to the leaves if they come in contact with them?

By leaving the mulching on Haverlands a few days longer than on the other varieties, it would help somewhat in causing the bloom of all the varieties to open at the same time. This will do where you have the plants already set, but we would not advise you to set a medium pistillate with late bisexuals again. The mulching should not be left on the Haverlands longer than five or six days. In fact, you can tell the length of time better than we. Watch the plants under the mulching, and if they start growing, uncover at once.

2. If wood ashes were applied now, some of the plant food would leach out during the winter rains, and the plants might be benefited a trifle, but we doubt if the value would warrant the expense. The best way to apply wood ashes is on top of the ground, and work them into the soil before setting the plants. A small amount of ashes would do no injury to foliage; if applied when the plants are dry the ashes would not adhere to the leaves.

H. H. B., Garnett, Okla. Having had ample moisture in this county the past year, my strawberries have made a wonderful growth. They have made a perfect mat over the whole surface. I wish to take up several thousand plants for spring setting. Will those do that now cover the walks or spaces between rows?

2. In this latitude it does not freeze very deeply. I have covered plants very lightly with short, chaffy wheat straw. Shall I rake this off or let lay in spring?

3. The plants in places are as thick as they can possibly stand. How should I thin these out so they will produce more abundantly?

4. I live twenty miles from a good market. Can I get them there in good shape in a spring wagon?

It is not a good plan to take strawberry plants from the alleys of the fruit bed, because by so doing this would give merely

A VALUABLE FRUIT TREE FREE

The New Apple, "DELICIOUS"

BY special arrangement with the introducers of this fine new apple, the publishers of The Fruit-Grower, St. Joseph, Missouri, are enabled to offer a tree ABSOLUTELY FREE to their subscribers.

We show in this advertisement a half-tone cut from photograph showing actual size of "Delicious" apple. A photograph of tree in bearing will be found in the advertisement of the introducers on last cover page of this issue of The Strawberry.

The "Delicious" apple originated in Iowa and is perfectly hardy; quality is of the very highest. The introducers say this apple was first sent out by them ten years ago and during that time have not received a single adverse report either on tree or fruit, although planted from Maine to Pacific Coast. Probably a seedling of Bellflower, which it somewhat resembles in shape, but is much superior in quality, color, hardiness and bearing. Size large to very large; skin yellow, striped or almost covered with dark brilliant red; flesh very tender, crisp, juicy, with an ideal, delicious flavor. Tree a strong, upright grower, hardy and a heavy bearer. Hangs well, keeps well. Bruises dry up instead of rotting. Has been held in cold storage until June a number of years and each time "Delicious" kept better than Ben Davis.

THE FRUIT-GROWER is the only magazine in America which is devoted solely to the interests of those who grow fruit of all kinds; handsomely illustrated, it contains from thirty-six to seventy-two pages each issue. It tells all about fruit, and nothing but fruit—how to market, cultivate, spray, prune, how to make more money from fruit crops. Everyone who answers this advertisement will receive a copy of the March issue, our Gardening Number, containing seventy-two pages with cover and insert in colors, and this one number is guaranteed to be worth the price of one year's subscription.

While the regular price of The Fruit-Grower is $1.00 a year, for a limited time we will send the paper one year on trial to **Two New Subscribers for One Dollar**, will mail to each a "Brother Jonathan" book and the SENDER of the club will get **absolutely free**, prepaid, a fine tree of the new apple "Delicious".

"DELICIOUS" APPLE, NATURAL SIZE, FROM PHOTOGRAPH

The Brother Jonathan series of fruit books is admitted to be the most valuable set ever printed on different phases of horticulture. While the regular price is 25 cents each, one book will go free to each subscriber sent through this advertisement. The series comprises ten books as follows: No. 1, Propagating Trees and Plants; No. 2, A Treatise on Spraying; No. 3, How to Grow Strawberries; No. 4, The Home Garden; No. 5, Packing and Marketing Fruits; No. 6, A Book About Bush Fruits; No. 7, Growing Grapes; No. 8, Hints on Pruning; No. 9, Apple Culture with a Chapter on Pears; No. 10, Success with Stone Fruits. Order by number.

Fruit-Grower Trade-Mark "Brother Jonathan"

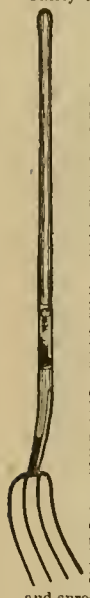
Accept Special Offer At Once

This offer must be accepted at once as trees cannot be sent out after May 1. Send remittance of One Dollar, coin, stamps, currency, personal check or money order, and The Fruit-Grower will be sent one year on trial to the names of two new subscribers, each subscriber will receive free a choice of any one of the ten "Brother Jonathan" books, and the SENDER of the remittance only will receive a tree of "Delicious" apple free. It is a condition of this offer that you also send the names of three friends or neighbors who grow fruit. Write at once to

FRUIT-GROWER CO., St. Joseph, Missouri

THE EVOLUTION OF A FOUR-TINED MANURE FORK

"THINK OF IT! Twenty-five expert toolmakers and eighteen assistants are required to manufacture a four-tine manure fork that you can buy for about seventy-five cents. Thirty-three intricate machines, forges and devices of special invention, and worth thousands of dollars, are also employed in the making of this fork.

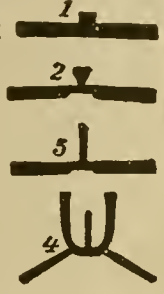


This interesting information is furnished by the American Fork & Hoe Company in its free book, "Tools and Their Uses," in connection with the establishment of its True Temper line of farm and garden hand-tools. This is one of the important steps of the year in the implement world, accounts of which are being widely published.

The process of making each individual pattern of tool is necessarily different, but the four-tine manure fork gives a good idea of how much effort and expert ability is put into the best modern tool as exemplified by the True Temper line.

The first operation is that of "blanking." A large power machine operated by two men cuts the form shown by figure 1 from a steel bar which has been heated in a furnace.

The form is then "center headed" as shown in figure 2. This form is the result of heating the preceding form and subjecting it to the operations of another large special machine operated by one man.

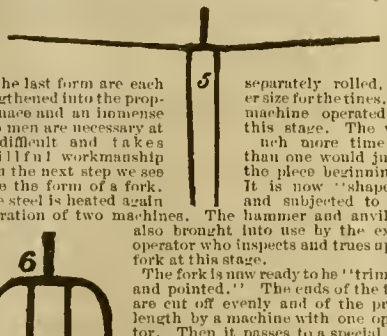


The indentation on the under side produces the space between the two center tines, making the head the right size and injects the superfluous metal into the shank part.

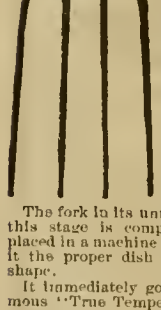
In the third step the bar is "shank drawn." The last form is heated and a shank is drawn from the little keystone appendage, and pointed by means of a large machine hammer operated by one man.

The steel bar is then "split and spread." That is, the two ends of the bar are heated, cut and spread so as to form four projections as shown in figure 4. These projections are to provide the tines of the fork.

The tines are then "rolled." The four extending arms



of the last form are each lengthened into the prop- separately rolled, and furnace and an immense er size for the tines. One two men are necessary at machine operated by is difficult and takes this stage. The work skillful workmanship nch more time and than one would judge. In the next step we see the piece beginning to take the form of a fork. It is now "shaped." The steel is heated again and subjected to the operation of two machines. The hammer and anvil are also brought into use by the expert operator who inspects and trues up the fork at this stage.



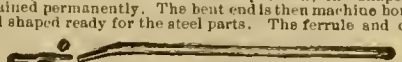
The fork is now ready to be "trimmed and pointed." The ends of the tines are cut off evenly and of the proper length by a machine with one operator. Then it passes to a special machine where one man does nothing but put sharp, smooth points on forks.

The most important stage in the fork's production is when it goes through the last actual forging shop operations, to be "dished, shaped and tempered."

The fork in its unfinished shape up to this stage is completely heated and placed in a machine former, which gives it the proper dish and final accurate shape.

It immediately goes through the famous "True Tempering Process" perfected by the American Fork & Hoe Company, after years of experience and experimenting. For obvious reasons, the process is not made public. It is claimed for it, however, that it brings the tool up to the highest degree of toughness, and gives the elastic "spring" so much sought after by toolmakers. During the final operations, the fork is critically inspected and trued up on the anvil by hand and hammer. The men who do this work are experts, skilled to the highest degree in tool making, and when they have tempered and passed a fork, it is indeed genuinely true.

Three rigid tests are now applied to the fork to see that it has (1) the proper elasticity of temper, (2) the required toughness of temper, (3) accurate dimensions. That is how "True Temper" tools are proved "highest grade by special test." After the tempering and testing, the fork goes to the finishing shop, where it is subjected to the operations of three machines. It comes out with a bright, smooth, metal polish. In the next step, the fork is treated to a special liquid solution, which prevents rusting or corroding. In the making of the handle, second-growth ash timber, suitable for handles, is first selected in the tree. After it is cut and delivered to the mill, it is sawed into planks and then into squares of proper dimensions and lengths for handles. The gracefully shaped handle is "turned," or cut down from the rough-sawed square piece of timber, in an automatic machine. It is steamed and properly bent. Dried in this bent position, the shape is retained permanently. The bent end is then machine bored and shaped ready for the steel parts. The ferrule and cap



are next driven on, and the shank of the fork into the handle at one operation.

The finished product is an article far superior to that of the old individual craftsman who did all the work, for the best knowledge of mechanical science is utilized throughout.

a tip plant which is the very weakest. We have always discouraged the idea of growing plants and fruit in the same place at the same time. Of course, these alley plants will grow and make lots of runners, but they will never produce the big crop of berries that plants would produce which are grown in a special propagating bed.

2. As you have used short chaffy wheat straw for mulching, we hardly think it will be necessary for you to remove any of it from the plants, as the plants will grow up through it. It would be a good plan for you to go up and down each row, carrying a fork, and remove the straw where it is so thick the plants could not come through.

3. It is now too late for you to remedy matters where your plants have matted so thickly. Wait until the fruit is all picked, then the rows may be narrowed down as will be described in The Strawberry later on.

4. Strawberries easily may be hauled to market twenty miles in a spring wagon where the road is smooth. Of course, the berries should be carefully packed in the quart boxes, and the quart boxes snugly packed in a crate.

L. N. B., Shreveport, La. My land needs potash and I want to use some commercial fertilizer. Shall I put the fertilizer on now in the rows in which I intend to set the plants or shall I wait and put it on when the plants are set out?

2. How much fertilizer shall I use per acre in rows? I have adopted the single-hedge row system and will set the plants thirty inches apart in rows three feet apart.

3. After the plants are set out and begin to grow this summer shall I allow one plant to form on each side of the original plant and keep all others cut out?

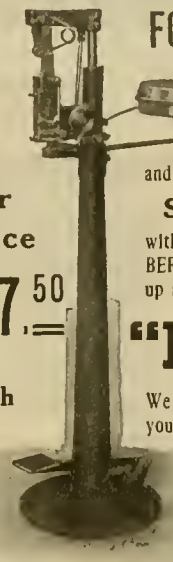
4. I am in correspondence with Morrill & Morley and want to buy a row sprayer. Do you advise commencing spraying immediately after the plants are set?

As your land needs potash, if you could get hard-wood ashes and apply fifty bushels to the acre, working them thoroughly into the soil before setting the plants, it would furnish enough potash to give your berries good color and high flavor. If you cannot get the ashes you could use 200 pounds of muriate of potash to the acre, applying in the same manner as the ashes.

2. It is not a good plan to apply fertilizer directly in the row where plants are set. Unless the fertilizer is thoroughly mixed with the soil, there is danger of its coming in contact with the roots, which would hurn them. Always apply commercial fertilizer broadcast over the entire surface and work well into the soil.

3. It will be proper if you allow each mother plant to produce two runner plants, layering them directly in the row on each side of the mother plant. Then you will have a continuous row of plants, each one

BEST STAPLER IN THE WORLD FOR THE MONEY



MR. BERRY GROWER:

To meet your demand for a reliable and yet inexpeosive foot-power

Stapling Machine

with which to make up your BERRY BOXES, we have gotten up and are offering you our

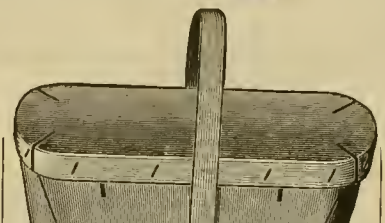
Our Price $17.50 Net Cash

"Leader"

We recommend this machine to you as a durable and practical money saver, and

WE FULLY GUARANTEE IT IN EVERY RESPECT

ST. JOSEPH IRON WORKS, 622 WATER ST., ST. JOSEPH, MICH.



BERRY BOXES

and all kinds of Fruit Packages

OUR SPECIALTIES:

Qoart and Pint Berry Boxes, 16 and 24-quart Crates, Picking Stands, Bushel Crates for Vegetables, All Kinds of Grape and Peach Baskets, Bushel Baskets with or without covers, Half-bushel Picking Baskets with strong handles, and many other convenient packages for fruit and vegetable growers; the most durable made

Write for our **Free Catalogue.** It describes and illustrates everything we make

GEO. B. THAYER & CO., Beoton Harbor, Mich.

Fruit Packages of all Kinds

Before ordering your supplies write for our **Descriptive Catalogue and Price List.**

BERLIN FRUIT BOX CO.,

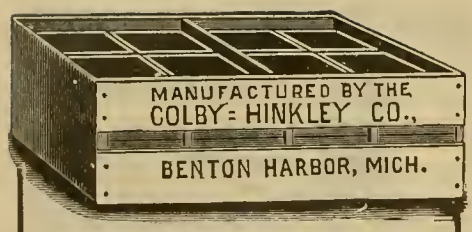
Erie Co. Berlin Heights, Ohio.

ANDREW REESH

MANUFACTURER OF BERRY BASKETS AND BERRY CRATES

All sizes of berry baskets from half-pints to the standard quart. **All Machine Made, Bottom Stapled** and made of Hard wood or Basswood. Send for circular and prices.

ANDREW REESH, New Springfield, Ohio



BERRY BOXES
BERRY CRATES

In flat or made up. All kinds of

BASKETS

BEST GOODS **RIGHT PRICES**

Send postal card for catalogue

Colby-Hinkley Company
BENTON HARBOR, MICHIGAN

being six or eight inches in the row from the other.

4. To make spraying effective, you should start spraying just as soon as growth starts in the spring, and repeat the spraying about every ten or fifteen days.

⚜ ⚜

G. F. G., Hornellsville, N. Y. I have ten acres of ground just outside a city of 15,000 population. It is a railroad town and there is a good market for everything you can grow, but my land is on a hill; fairly level when you get to it, but it is almost impossible to get stable manure up to it. I have an acre sowed to rye last fall. It has made a splendid growth and completely covers the ground. It has had no stable manure nor will it get any. What I would like to know is if I plowed that rye under good and deep in the spring and gave it a good heavy dressing of a high-grade fertilizer that would analyze 3-8-12—1,500 to 2,000 pounds to the acre—would I not get good results, other conditions being all right, with all that rye in the bottom and that fertilizer thoroughly worked in on top?

2. It is hard for me to get mulch. Would an acre of buckwheat straw not threshed and cut before the kernel is formed mulch an acre of strawberries? Also, if I were to sow corn very thick, broadcast, so it would grow small, would that do for a mulch?

Your situation is an admirable one for carrying on a successful strawberry business, and as the "lay of the land" is one that does not admit of the use of stable manure, you certainly should carry out the plan as you suggest. Being located on such highland will keep your bloom safe from frost. It will be a good plan for you to build up your land by growing cowpeas, depending upon them to renovate the soil and furnish it with humus and nitrogen, and then apply commercial fertilizer as you indicate is your decision. Under such treatment you should be able to bring your land into perfect condition for strawberry production.

2. An acre of buckwheat grown as you suggest should supply mulch for an acre of strawberries, if the straw be applied with care and economy. We think the buckwheat will be fully as good as sown corn.

⚜ ⚜

C. F. P., Tecumseh, Mich. Supposing one decides to look only for the particular trade, and so picks only the best or largest berries, leaving the small ones in the patch; does the leaving of these small berries on the vines in any way injure the strawberry plant for this or for future bearing periods?

2. You speak in your "experience" articles about the marketing of fancy fruit—what in your experience was the best way to get this result—by sorting out bad and under-ripe berries after they were picked; or by employing pickers on whom you could rely to pick the kind of berries only that you direct them to pick? I sorted my berries last season but found it a rather tedious proposition.

Where one is catering to a trade that is willing to pay a big price for fancy berries, the best way is to pack the fancy berries separately and sell them under a guarantee-label. Instead of leaving the small berries in the patch they should be gathered and sold to those who desire to purchase less costly berries for canning purposes. One may always secure a large enough price from such fruit to leave a fair profit after paying expenses of picking, besides relieving the vines of the berries. The longer berries remain on the vines the more strength do they draw from the vines. Seed production is a great strain upon plants.

2. The best way to grade berries is to have the pickers do the work in the field. They can pick all the fancy berries from a hill and before moving on to the next hill they can pick the second grades and put them in a box by themselves. This avoids rehandling the berries after they reach the packing house. This is important, as berries should be handled as little as possible.

And we may remark in passing that it is the man who caters to a particular line

THE KEWANEE SYSTEM
OF WATER SUPPLY

A City Water Supply without Water Tax

Will take care of your requirements for house, garden, barn, etc. Always an abundant supply of water for use anywhere you want it, at any moment day or night. Just the thing for

Strawberry Culture, Flower Beds or Vegetables

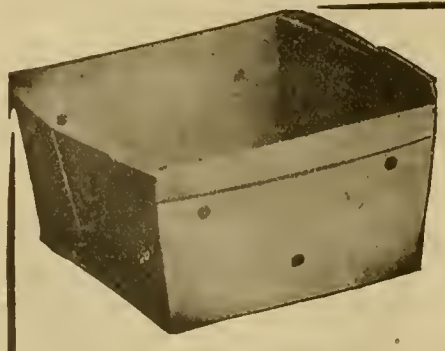
No elevated tank. Satisfaction and absolute safety. Sufficient pressure for ample fire protection.

We guarantee against freezing, collapsing, constant necessity for expensive repairs and other annoyances common in other systems of water supply.

We absolutely guarantee satisfactory results with every Kewanee system installed. Over 7,000 outfits in successful operation. Send for catalogue No. 15, which explains everything and tells where Kewanee systems may be found in your state.

KEWANEE WATER SUPPLY COMPANY

NEW YORK DRAWER R, KEWANEE, ILL. CHICAGO



Send for FREE Sample

The BASKET with the RIM

That is the distinguishing feature of the

WAX LINED PAPER BERRY BASKET

The height of Clean, Odorless, Taintless, Pure and Perfect Basket Perfection

IF YOU ARE A BERRY GROWER you want our Basket and we want your name

MULLEN BROS. PAPER COMPANY

Dept. B St. Joseph, Mich.

of custom who will most quickly and certainly build up a profitable and permanent trade.

J. E. B., Audubon, Minn. Is the rye you sow in the fall "winter rye"?

2. Does it ever winter kill through absence of snow?

3. Would it not be better to sow it the first part of September instead of October in my locality (northern Minnesota)?

4. As it never thaws or rains here in the winter to amount to anything till the latter part of March (or until the sun crosses the equator) how can rye take up any leachings from manure until the ground thaws out in the spring? It almost seems to me that you made a misstatement in the January issue of The Strawberry (page 5) which reads in part as follows: "Sow five pecks of rye to the acre. This rye in an ordinary season will be sufficiently grown to shade the ground, and the roots will penetrate the soil in such a way as to take up the winter manure leachings. During the winter when the ground is frozen, cover the rye with well-decayed stable manure. When evenly applied the manure will in no way interfere with the rye, which will work its way up through it." Now this rather sounds to me as though the rye must continue to grow even in frozen ground in order to work its way up through the manure. For if the manure is not applied until after the ground is frozen I should think the manure (and rye together) would so shade the ground as to hold the frost back until late in the spring as does the mulch on a strawberry bed. Otherwise I should think the rye would cease growing after the first freeze-up in the fall and not start to grow again until late in the spring. In short, is it of any use to sow rye in my latitude (where the ground almost invariably remains frozen "as solid as a rock" until the spring equinox) except for the purpose of furnishing humus to the soil?

5. In speaking of tobacco stems for use on the roots of plants to protect them against ants and lice, do you mean ordinary smoking tobacco or a different kind? Will any kind of tobacco do?

The rye we sow and recommend is common winter rye.

2. Rye is seldom, if ever winter killed. Of course if it should be sown late in the fall and fail to get well rooted, and alternate freezing and thawing occurred during the winter, it would be injured.

3. If rye is sown too early in the fall, it will make a large growth before winter, and the following spring it will grow to such a size that it will interfere with the working of the ground; that is, it will leave the ground too much like sod. The best time to sow rye in your locality would be about the middle or latter part of September, depending upon the season.

4. The fact that your ground remains frozen all winter is evidence that manure would remain frozen, therefore there would be no leachings. But in case your ground should thaw and the manure start to leach, then the rye would make use of it. In the spring when thawing begins, then is when the leaching would be increased, and the rye would prevent the waste.

5. The statements you quote in the January Strawberry on page 5, were made after actual experience, on this farm for years. We have seventy acres of rye now growing that was covered with manure during the winter months. The rye and manure combined are peferctly shading the ground, preventing the surface from puddling during the rains. If fall weather is favorable, and rye makes a good growth, it will shade the ground enough to keep it from thawing as rapidly as it would without any protection. We certainly

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES

The IDEAL IN REALITY

Patented Nov. 17. 1903.

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all** who have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crushed. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the **flat** condition.

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

Sales during 1906 in **31 states and some foreign countries,** and **1,400 new names** were added to our already large list of customers. **Communication with 47 States.**

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents.

Patentee will sell his rights or organize a special company. Demands are too large for present arrangements. All who are interested, write above company.

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent

A Free Trial Package is Mailed to Everyone Who Writes

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr A. L. Rice, Manufacturer, 613 North St., Adams, N. Y., and he will send you a free trial package; also color card and full information showing how you can save a good many dollars. Write to-day.

would advise you to sow rye, and it will greatly benefit your ground. even if it does remain frozen all winter.

6. The reason we recommend tobacco stems is because it is the cheapest way to buy them. Any kind of leaf tobacco will do. You can buy the pure tobacco dust from the Kentuckey Tobacco Product Co., Louisville, Ky. This dust should be sprinkled in the opening before you set the plant. Or it may be sprinkled around the plant after setting, and worked in with the hoe.

G. W. F., Washington Co., Minn. Last summer I raised about an acre and a half of strawberries, and had a fairly good crop. After the season was over I mowed them all down, and that is all I did to them, intending burning them off, but it was too wet for some time, and when it became dry enough was too busy to attend to them. I would like to know if there is anything I can do next spring to insure a better crop than I am likely to have after neglecting them as I did last fall?

Intend setting out two acres this spring and intend taking better care of them. I think your correspondence school very interesting and instructive. Could not do without The Strawberry now.

There is nothing you could do this spring to remedy matters more than to apply about two hundred pounds of nitrate of soda to the acre. As your plants were neglected last fall and received no cultivation, they will need an extra supply of nitrate of soda to give any results. Scatter one hundred pounds to the acre just as growth begins in the spring, and the other one hundred pounds just before the buds open. Scatter it evenly directly over the row when the plants are dry.

Glad to know The Strawberry is proving of such great value to you.

M. J. V., Nolalu, Ont. I intend to plant half an acre of berries this spring. It is new land, plowed and harrowed early last fall, sandy loam. This spring I intend to work a good amount of manure through it before planting. Could I grow small stuff such as lettuce, radishes and dwarf kidney beans between the rows this season?

2. Would two and a half feet between the rows be sufficient for double-hedge row? I intend to work with hand cultivator.

3. Would it be a paying investment to put some fertilizer on the plants the following spring? If so, what kind would you advise?

4. Would I need much mulching here in winter—the snow being two to three feet deep and stays all winter?

Where soil has been made quite rich, such small vegetables as you mention should be successfully grown between the rows of strawberry plants. In doing this it would be necessary to do all the culti-

Planet Jr. Tools
are guaranteed
—the best-working, easiest-running, longest-lasting, most reliable farm and garden tools. Designed by a practical farmer. Do the work quickly, right, without injury to plants Made of the very best materials, with good honest workmanship.
No. 17 Planet Jr Single Wheel Hoe, Cultivator and Plow. One of the handiest implements ever made for gardening. All cultivating parts are of high-carbon steel to keep keen edge. Specially designed to work extremely close to plants without injury. One man easily does the work of three to six.
Planet Jr 12-tooth Harrow, Cultivator and Pulverizer is a splendid tool, for berry-growers and market gardeners—invaluable wherever fine, close work is needed. The twelve chisel-shaped teeth and the pulverizer leave ground in the finest possible condition. Saves many times its cost, and turns hard work for three men into easy and better work for one.
A Planet Jr farm and garden tool for every need—Hill- and Drill-Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding Cultivators, Harrows and Orchard- and Beet-Cultivators—45 kinds in all.
Even if you have a Planet Jr write now for our new 1907 Catalogue, showing photographs of successful gardening at all stages, also the interesting new models.
S. L. Allen & Co.
Box 1106D Philadelphia, Pa.

A Gift to Flower Lovers

By special arrangement with the publishers of THE GARDEN MAGAZINE we are enabled to present to our readers the most attractive offer ever made. Every florist knows that GROFF'S HYBRID GLADIOLI are the most famous in the world; they are the most difficult to secure and the most expensive gladioli grown. The arrangement we have made enables us to make this extraordinary offer:

25 Groff's Hybrid Gladiolus Bulbs - -
Six months' subscription to Garden Magazine
One Year's subscription to The Strawberry
} $1.75

GROFF'S HYBRID GLADIOLI WON THE GRAND PRIZE AT THE WORLD'S FAIR AT ST. LOUIS. They will give you a flower garden rich in colors of exquisite shade. No other flower is of such easy culture or embraces so large a range of color. The 25 bulbs we give you free will make your garden a veritable fairy land.

THE GARDEN MAGAZINE is one of the handsomest and most valuable publications in the world. It tells how to handle your flower and vegetable gardens to insure perfection. It comes once a month.

THE STRAWBERRY is handsomely printed, beautifully illustrated and its Correspondence School Department is the most valuable feature ever adopted by a horticultural publication. All your questions regarding strawberry production are answered by the world's greatest strawberry expert. It also is a monthly visitor.

If you wish to secure the bargain of a lifetime send us $1.75 and get The Garden Magazine for six months, The Strawberry for one year and 25 of Groff's World-famous Hybrid Gladioli, guaranteed to reach you promptly and in good condition.

The Kellogg Publishing Company

THREE RIVERS, - - - - MICHIGAN

AN abundance of fruit of highest quality, finely colored and flavored, is the direct result of supplying a complete fertilizer containing from 7 to 12 per cent. of POTASH to the tree, vine or bush.

"Plant Food" is a book well worth a place in the library of any fruit grower. We will gladly mail it to all applicants.

GERMAN KALI WORKS
93 Nassau Street, New York

Try Till You're Satisfied

I give up to 90 days trial. I want you to know what I know before you buy. Nothing to bide about

Johnson Pays the Freight

OLD TRUSTY Incubators

and Brooders. The Old Trusty plan is all right. I build them square. I want to deal fair and square. Old Trusty has made thousands of personal friends. Write for my 1907 free catalog. You'll be interested.

M. M. JOHNSON,
Clay Center, Neb.

PLYMOUTH ROCK SQUABS

are largest and most prolific. We were **first**; our birds and methods revolutionized the industry and are widely copied. First send for our **FREE BOOK,**

"HOW TO MAKE MONEY WITH SQUABS"

PLYMOUTH ROCK SQUAB CO.,
402 Howard Street, Melrose, Mass.

Poultry Sold on Credit

I have the largest poultry plant in the world. I will sell you eggs for hatching, poultry, or dogs on a year's credit. Send 10c. and I will send you my poultry paper, "Poultry and Dogs," for a year, I will also send you a copy of my large illustrated catalogue. Send to-day. Address, **J. R. Cote,** Box K , Chatham, Ont. Canada.

HATCHING TIME IS HERE!
and so is the new
AUTOMATIC BUCKEYE INCUBATOR
OPERATES WITHOUT A THERMOMETER.

All Metal, Fire Proof, Continuous Hatcher. SOLD ON INSTALLMENTS with five years guarantee. Adjusted ready to run when you get it. CATALOGUE FREE.
BUCKEYE INCUBATOR CO., Box 49, Springfield, O.

EATON'S FAMOUS POULTRY FOODS

CHICK	SCRATCH	MASH
LIFE SAVER	CLIMAX	PERFECTION

Ask your dealer, or write R. D. EATON GRAIN & FEED Co., Norwich, N Y. Mention this paper.

FREE ONE YEAR'S READING

Send 10 cents for a year's subscription to American Stories, the best story magazine published, and we will send you the King Magazine (the popular Woman's and Home Magazine) one year free, and also give you a year's subscription to Rural Young People, the big boys' and girls' magazine. All for only 10c, and your name on our **big mail list** free. Send today.
BURGES PUB. CO., Dept. T. X., Grand Rapids, Mich.

VIRGINIA FARMS, $500 including new 3-room cottage and 25 acres for poultry, fruit and vegetables. Oakdale tract, Waverly, Va. Midway Norfolk and Richmond. Finest climate, water and markets. F. H. LaBaume, A. & I. Agt. N. & W. Ry., Box SB, Roanoke, Va.

vating with hand tools until the vegetables are marketed.

2. For the double-hedge row we would suggest that you make the rows three and one-half feet apart, then when these rows are formed there will be about thirty to thirty-four inches of bare space between the rows. If you intend to use hand tools throughout the season, it will be all right to make the rows two and one-half feet apart.

3. If your ground has not been well manured, it would be a good plan to use 500 or 600 pounds of some commercial fertilizer. Write the Mapes P. & G. Fertilizer Works, 143 Liberty St., New York City. They make a complete fertilizer for this purpose.

4. If snow in your locality falls early in the winter, and remains on the ground until spring, it would be all right to defer mulching until about March. The mulching could be put on top of the snow and it would settle to the ground as the snow melted.

R. R. H., Sebastopol, Calif. In a propagating bed is it best to let a mother plant raise all the young plants it will without any restriction whatever?

2. In the case of a mother plant with long runners, with five or six plants on one runner—will the end plants make as good fruiting plants as the first one or two next to the mother plant?

3. Do you know of a variety of strawberry called the British Queen? Do they go by some other name in different parts of the country, or is it just a local variety here in California?

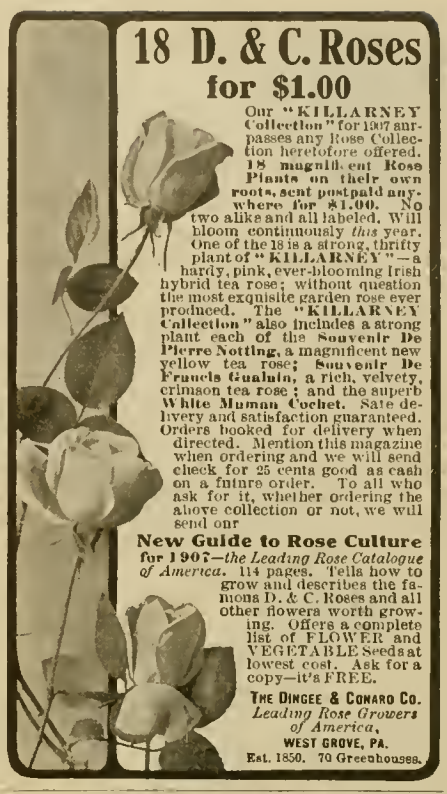
I can suggest a few pointers that may help some one. I take a common hoe and cut off the sides at an angle, from a point near the stem to the corner at the cutting edge, making a triangle of it, and sharpen all three edges. If the handle is too long, cut it off, and if too large around plane it down. I find it very light and handy, and remember it will take a long time to wear out a hoe if you sharpen it with a file every few minutes. I have a hoe of the same pattern as above described with a handle eight or ten inches long, to use with one hand, holding the plant over with the other hand, for working extra close to old plants. I like The Strawberry very much, and I find it very interesting and helpful.

Plants in the propagating bed should be restricted by cutting off all lateral runners—that is, the runners that start from the side of the principal runner—and do not allow the plants to mat so thickly that they will not have room to develop to good size.

2. If the soil has been well supplied with plant food, and the mother plant kept perfectly healthy and vigorous, all progeny should be of equal value.

2. We know nothing apout the British Queen variety.

We often have cut the top corners off hoes as you describe, and it makes an ideal tool for working around strawberry plants. However with a hoe thus made great care should be used when working close to the plants that you go not too deeply or too close to the plant, lest the roots be cut.



18 D. & C. Roses for $1.00

Our "KILLARNEY Collection" for 1907 surpasses any Rose Collection heretofore offered. **18 magnificent Rose Plants on their own roots, sent postpaid anywhere for $1.00.** No two alike and all labeled. Will bloom continuously *this* year. One of the 18 is a strong, thrifty plant of "KILLARNEY"—a hardy, pink, ever-blooming Irish hybrid tea rose; without question the most exquisite garden rose ever produced. The "KILLARNEY Collection" also includes a strong plant each of the **Souvenir De Pierre Notting,** a magnificent new yellow tea rose; **Souvenir De Francis Gualuin,** a rich, velvety, crimson tea rose; and the superb **White Maman Cochet.** Safe delivery and satisfaction guaranteed. Orders booked for delivery when directed. Mention this magazine when ordering and we will send check for 25 cents good as cash on a future order. To all who ask for it, whether ordering the above collection or not, we will send our

New Guide to Rose Culture
for 1907—*the Leading Rose Catalogue of America.* 114 pages. Tells how to grow and describes the famous D. & C. Roses and all other flowers worth growing. Offers a complete list of FLOWER and VEGETABLE Seeds at lowest cost. Ask for a copy—it's FREE.

THE DINGEE & CONARD CO.
Leading Rose Growers of America,
WEST GROVE, PA.
Est. 1850. 70 Greenhouses.

ROBUST, STURDY, HARDY

They live, grow, make money for you. Got our catalog? If not, send for it today. Millions of plants, trees, bushes—general nursery stock ready. Free catalog tells all. Valuable spraying calendar in it. Order stock now for fall setting.

Peaches
Pears
Apples
California Privet

ARTHUR J. COLLINS
Box 415, Moorestown, N. J.

BERRY PLANTS

We are headquarters for plants of the new "Oswego" strawberry and 50 other best new and old varieties. Also the "Plum Farmer" raspberry and other desirable kinds of Raspberries, Blackberries and other Fruit Plants, etc. 23 years experience. Highest awards at World's Fair. We invite correspondence. Catalog free.
L. J. Farmer, Box 732, Pulaski, N. Y.

Detroit Fruit, Poultry, Dairy and Farm Gardens
Pay Handsome Profits

We have them fitted up ready for operation and ranging in size, location and price
TO SUIT CUSTOMERS
For particulars write to
BOLTON REALTY CO., Detroit, Mich.

BERRY BASKETS AND HALLOCK BOXES

Also Beekeepers' Supplies sold at a reduced price and shipped from Central Michigan. Send for 32-page catalogue free. **W. D. SOPER, Jackson, Mich.**

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN Western Representative
315 Dearborn St., Chicago, Ill.

S. E. LEITH Eastern Representative
150 Nassau St., New York City

Address Communications and make all Remittances to The Kellogg Publishing Co., Three Rivers, Mich.

TERMS OF SUBSCRIPTION:

One Year, postpaid - - - -	$1.00
Two Years, postpaid - - - -	1.50
Three Years, postpaid - - -	2.00
Five Years, postpaid - - - -	3.00

Foreign, 25 cents per year additional

RATES OF ADVERTISING:

15 cents per line, agate measurement, or $2.10 per inch, with 2 per cent discount for cash.
Classified ads. 3 cents per word; cash to accompany order.
No questionable advertisements inserted at any price.

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

APRIL 1907

APRIL in the northern latitudes is the month for beginning things. It is the month for so many of us that proves the old adage that "well begun is half done." We need to remember it at the very start and to see to it that we begin right this spring in our berry patches and fields so that when fruiting time comes we shall have the satisfaction of reaping an abundant harvest of beautiful and luscious berries. It's all very simple if you follow the right combination, and The Strawberry, with its Correspondence School will show you the way so clearly that you cannot fail. Now, then for a good beginning with the first days of spring!

WHEN a rascal will he will, and we sometimes wonder how much of actual value is to be accomplished through pure-food and anti-fraud laws enacted by legislatures and congress. A striking instance of how the laws made by the government to insure that proper brands are placed upon goods sent from Canada to the old country can be evaded is given by J. A. Ruddick, commissioner of dairying and cold storage, before the Dominion committee on agriculture a few days ago. The particular case to which he referred was the case of an Ontario packer, who shipped a number of barrels of apples by the Grand Trunk via Portland, Me., to England. When they left Colborne they bore the packer's name, the sign No. 2 appearing between the two lines "put up by" and the name of the firm, James Coyle. During the time the barrels were at Portland a man entered the freight sheds and added the words "No. 1 XXX" to the marking on the barrels, thus creating the impression that the No. 2 mark was a private mark of the person who shipped the goods. What is needed is not more legislation, but a vigorous enforcement of laws already on the statute books. And more than that, a public sentiment that will brand a fraud a fraud, and a thief a thief and make frauds and thieves unpopular. So long as "successful" frauds are publicly admired they will continue their fraudulent practices.

NOW is the time to be "doing things" in preparation for the rush season of spring, and we don't know of a more important work than the making of con-

veniences like the one herewith illustrated. This is an old-fashioned device, as all our old pioneers will recall, but E. D. Donaldson of Covington, Ind., has applied the principle in a way very suggestive to strawberry growers, and we take pleasure in "passing it along." You will see how it adds to the "one-man power," and swinging free as the berries do, and without jar, it is better than two men could do without the double yoke.

TO the burgomaster of Mannheim, Germany, Herr Ritter, The Strawberry acknowledges its indebtedness for a courteous note announcing a unique exposition which will open in that city on May 1, and will be of peculiar interest to horticulturists everywhere. It is nothing less than an international exposition of horticulture in combination with a very important art exposition. It is especially desired that American florists and gardeners shall participate, and we need hardly point out the advantage to all commercial horticulturists of attending such a novel yet suggestive exposition. It is announced that England, France and even the primitive forests of South America will contribute to the exposition of orchids. Besides cultivated plants from England and France there will be exposed as curiosities the strange forms of wild orchids gathered with difficulty in Mexico, Brazil and on the banks of the Orinoco river. The cactus display will contain a great number of interesting and peculiar plants, representing a rich collection from all tropical countries. There will be exhibited gigantic cactus plants from Mexico and South America. Herr Ritter also is chairman of the exposition.

BE sure and read the announcement this month of our Photographic Contest for 1907. Every strawberry grower in the world is invited to compete. You will see that we have doubled up on our prize offers, by making two classes—commercial strawberry fields for one, and family patches for the other. This will give everybody a chance, and ought to interest every person who is engaged in strawberry growing, no matter on how large or small a scale.

EVERY woman would like to keep her hands smooth and soft and free from marks of labor and the discomforts of chapping. But washing dishes and washing clothes, using strong lye soaps and going out into the cold air from the steaming hot laundry, will leave their marks—if you don't protect the hands. Mrs. J. H. Pratt of Three Rivers, Mich., has a way to save all that discomfort and displeasure, and it is so inexpensive that every woman in the land may enjoy its benefits. One pair of her Economy rubber gloves transforms all this disagreeableness into a delight. Read her advertisement in this number of The Strawberry and never again have occasion to complain that your housework is spoiling your hands. Those gloves are perfection itself.

FEW housewives but have heard of the Bissell carpet sweeper, one of the greatest inventions for the relief of the housekeeper the Nineteenth century produced. Carpets and rugs when swept with the hand broom quickly show wear, while the woman who does the work finds them the cause of back-breaking labor. With the Bissell sweeper the carpets and rugs are thoroughly cleaned without injury to the fabric, and the work itself becomes a pleasure to the housekeeper. We would like to have every reader of The Strawberry take advantage of the offer made in the advertisement of this company in this issue of The Strawberry, confident that it will give them more satisfaction than would any other similar investment.

FOR the past two years the H. L. Hurst Mfg. Co., whose advertisement appears in this paper, have been selling the entire output of their large factory direct to the consumer by mail at wholesale prices, giving the buyer an opportunity to test the machine before paying for it, which certainly proves that their goods are first-class and that they give good satisfaction. They also guarantee all their sprayers for five years. Their valuable "Spraying Guide" and full information will be sent free to any of our readers. Address the H. L. Hurst Mfg. Co., 75 North St., Canton, Ohio. Don't fail to ask for it.

Make 2 Berries Grow where 1 Grew Before

—Double Your Strawberry Crop

Every Strawberry Grower is anxious to double his crops.
It is easy if you go at it in the right way.

When you remove a crop, you also take with it a certain percentage of the soil's nutrition. You reduce fertility in just that proportion which was consumed in growing that crop. It is reasonable, then, that you should be vitally interested in returning to your land adequate means every year to keep up its fertility. Feed your land

Swift's Strawberry Special

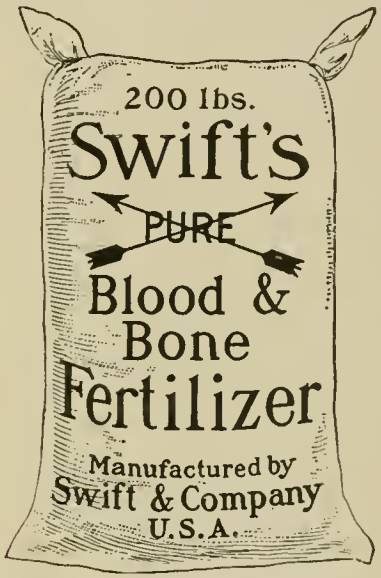
A high-grade concentrated Strawberry fertilizer that has proven in actual test to be the best plant food. It quickens the growth, assists development and improves the quality of the plant.

There are many good reasons for this. Its analysis, which is guaranteed, shows it supplies the soil with special elements practically advantageous to strawberry plant life. Its base is Pure Animal Matter comprising Dried Blood, Bone and Meat Tankage so proportioned in Ammonia, Phosphoric Acid, Potash from Sulphate of Potash, to produce an ideal plant food.

Write Today Get our instructive Ferilizer Book. It will help you to make your Strawberry Beds pay bigger profits. Ask your nearest dealer for Swift's Strawberry Special. Remember "Two Berries grow where one grew before"—that is, Double Profit—and no more labor. To find out about "Swift's Strawberry Special" write to

Swift & Company, Fertilizer Department, Chicago.

Feed Your Hungry Land



The Delicious Southern Strawberry

Picking Strawberries on line of Illinois Central R. R. in Louisiana

PROLIFIC IN QUALITY, EARLIEST ON THE MARKET, AND A

LONG GROWING SEASON

IN LOUISIANA AND MISSISSIPPI ON LINE OF THE ILLINOIS CENTRAL R. R.

THE SOUTHERN STRAWBERRY GROWER has an advantage over his brother of the North in getting his berries into market early. From Louisiana and southern Mississippi, berries are frequently ready for market during the month of March, and shipments continue until June, or until such time as the Northern markets are so glutted as to make it unprofitable to ship them so far, after which the Southern markets are still available. The season for picking berries in the South is much longer than in the North; they continuing to blossom and ripen for two months, and in some cases it has been even three months from the time of the first to the last picking. The Illinois Central Railroad Company, appreciating to the fullest extent the necessity of having fruit and vegetables grown on its line reach Northern markets in the best possible condition, has not only provided the best of refrigerator cars, but, during the season, run fruit trains from New Orleans to Chicago, shipments being picked up from all stations, say within one hundred miles, and from the last point the train is run through to Chicago on fast schedule, stopping only for coal and water, and at certain points for re-icing. In addition to its system for handling perishable products en route, the "Central" has a storehouse or fruit warehouse at Chicago in which fifty cars can be quickly handled at one time.

Send for 64 page Illustrated Book entitled "About the South" issued by the Illinois Central R. R. Co. and describing various matters of interest to the home seeker and investor, including information as to Fruit Growing. The book is free and can be had by addressing

J. F. MERRY, GENERAL IMMIGRATION AGENT, I. C. R. R., ROOM A, HIVE BLOCK, MANCHESTER, IOWA

Grow Apples that PAY the Producer and Please the Consumer

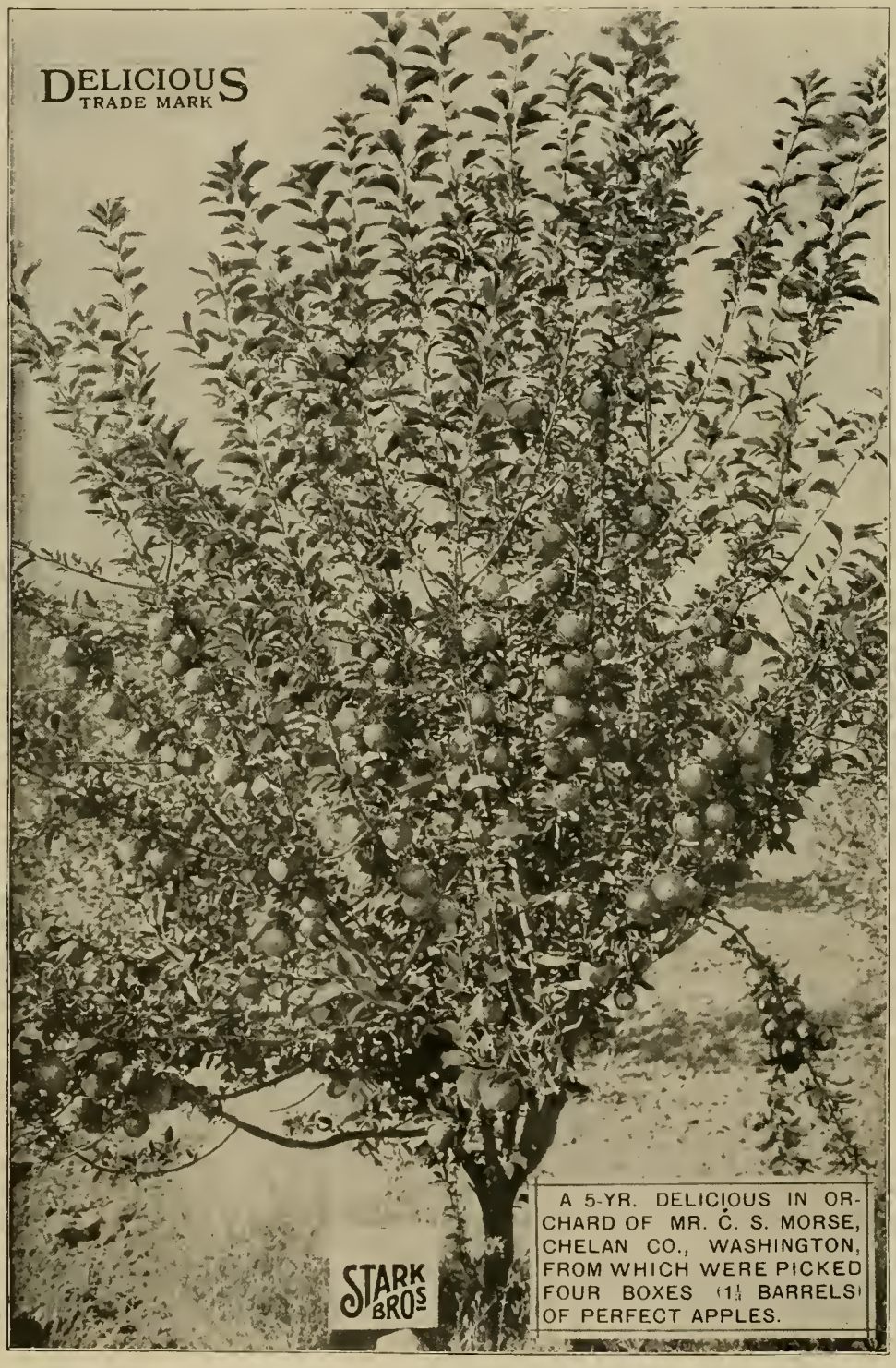
KING DAVID, DELICIOUS, LIEVLAND RASPBERRY, SENATOR, GIANT JENITON, BLACK BEN, GRIMES, JONATHAN, Etc., Meet All Requirements. Then Why Grow Inferior Sorts? We are Headquarters for All that is BEST in Apple, Pear, Peach, Plum, Cherry, Grape, Small-fruit Plants, Roses, Ornamentals, Etc.

For 82 Years STARK TREES

have been the standard by which good nursery stock is measured, and our sales have steadily increased until we are now compelled to maintain the largest nursery establishment in the world—conclusive evidence that Stark Trees are of highest possible quality and sold at as low prices as such stock can be produced.

Constant growth in any business during more than three-quarters of a century, is proof conclusive that customers receive honorable treatment and full value for their money. On no other basis could Stark Nurseries have built up their present trade.

Success in the nursery business depends entirely upon the success of customers; and they can succeed only with strong, healthy, thrifty, dependable trees of the best up-to-date varieties, well grown, well dug, well packed. We solicit orders on this basis, and if you send them to us, WE GUARANTEE SATISFACTION; and our guarantee means something—we are not "here to-day and gone to-morrow."


DELICIOUS
TRADE MARK
STARK BRO'S
A 5-YR. DELICIOUS IN ORCHARD OF MR. C. S. MORSE, CHELAN CO., WASHINGTON, FROM WHICH WERE PICKED FOUR BOXES (1⅓ BARRELS) OF PERFECT APPLES.

We Pay Freight

on orders of $7.50 or more to any Railroad station in

Arkansas
Illinois
Indiana
Iowa
Kansas
Missouri
Nebraska
Ohio

On orders of $10.00 or more to any Railroad station in

Alabama
Connecticut
Delaware
Dist. Columbia
Georgia
Indian Ter'ty
Kentucky
Louisiana
Maryland
Michigan
Minnesota
Mississippi
New Jersey
New York
North Carolina
Oklahoma
Pennsylvania
Rhode Island
South Carolina
Tennessee
Texas
Virginia
West Virginia
Wisconsin

On orders of $12.00 or more to any Railroad station in

Arizona
California
Colorado
Florida
Idaho
Maine
Massachusetts
Montana
Nevada
N. Hampshire
New Mexico
North Dakota
Oregon
South Dakota
Utah
Vermont
Washington
Wyoming

Our Wholesale Price-list gives full particulars.

STARK BRO'S NURSERIES & ORCHARDS Co

CAPITAL STOCK $1,000,000—ALL PAID UP

LOUISIANA, MO. STARKDALE, MO. ROCKPORT, ILL. FAYETTEVILLE, ARK. PORTLAND, N. Y. DANSVILLE, N. Y. ATLANTIC, IOWA

Write us at Louisiana, Mo., Desk 11, and we will send FREE, New Descriptive Fruit Book, Price-list, etc.

May 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry—but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

NEW SOUTH WALES

AUSTRALIA, OFFERS A WELCOME

THE wealthiest, most progressive and most prosperous state in Greater Britain, with an area of 310,000 square miles, and 20,000,000 acres of virgin wheat land within the 20-inch rain belt.

To the Emigrant Settler, to the Rural Laborer and to the Capitalist.

Emigrants Sound in Health, and Skilled in any Industry

Will Be Assisted.

The New South Wales climate is kind to the farmer, and wheat is produced there more cheaply than in any other country in the world. The great range of climate possessed by the State, permits almost every known crop to be raised.

A young country, close to the teeming East, with a fast growing population and rapidly expanding industries, and the converging point of many important trade routes, New South Wales offers many avenues of activity for the capitalist.

New South Wales produced last year $230,000,000. The men engaged in the Primary Industries produced $875.00 per head. New South Wales has many entrancing tourist resorts, great natural wonders in the limestone caves, and the oldest land surface on the globe in Mt. Kosciusko.

Full information, handbooks, etc., may be obtained on application to

THE DIRECTOR, Intelligence Department, SYDNEY, N. S. W.

The Delicious Southern Strawberry

Picking Strawberries on line of Illinois Central R. R. in Louisiana

PROLIFIC IN QUALITY, EARLIEST ON THE MARKET, AND A

LONG GROWING SEASON

IN LOUISIANA AND MISSISSIPPI ON LINE OF THE ILLINOIS CENTRAL R. R.

THE SOUTHERN STRAWBERRY GROWER has an advantage over his brother of the North in getting his berries into market early. From Louisiana and southern Mississippi, berries are frequently ready for market during the month of March, and shipments continue until June, or until such time as the Northern markets are so glutted as to make it unprofitable to ship them so far, after which the Southern markets are still available. The season for picking berries in the South is much longer than in the North; they continuing to blossom and ripen for two months, and in some cases it has been even three months from the time of the first to the last picking. The Illinois Central Railroad Company, appreciating to the fullest extent the necessity of having fruit and vegetables grown on its line reach Northern markets in the best possible condition, has not only provided the best of refrigerator cars, but, during the season, run fruit trains from New Orleans to Chicago, shipments being picked up from all stations, say within one hundred miles, and from the last point the train is run through to Chicago on fast schedule, stopping only for coal and water, and at certain points for re-icing. In addition to its system for handling perishable products en route, the "Central" has a storehouse or fruit warehouse at Chicago in which fifty cars can be quickly handled at one time.

Send for 64-page Illustrated Book entitled "About the South"

issued by the Illinois Central R. R. Co. and describing various matters of interest to the home seeker and investor, including information as to Fruit Growing. The book is free and can be had by addressing

J. F. MERRY, GENERAL IMMIGRATION AGENT, I. C. R. R., ROOM A, HIVE BLOCK, MANCHESTER, IOWA

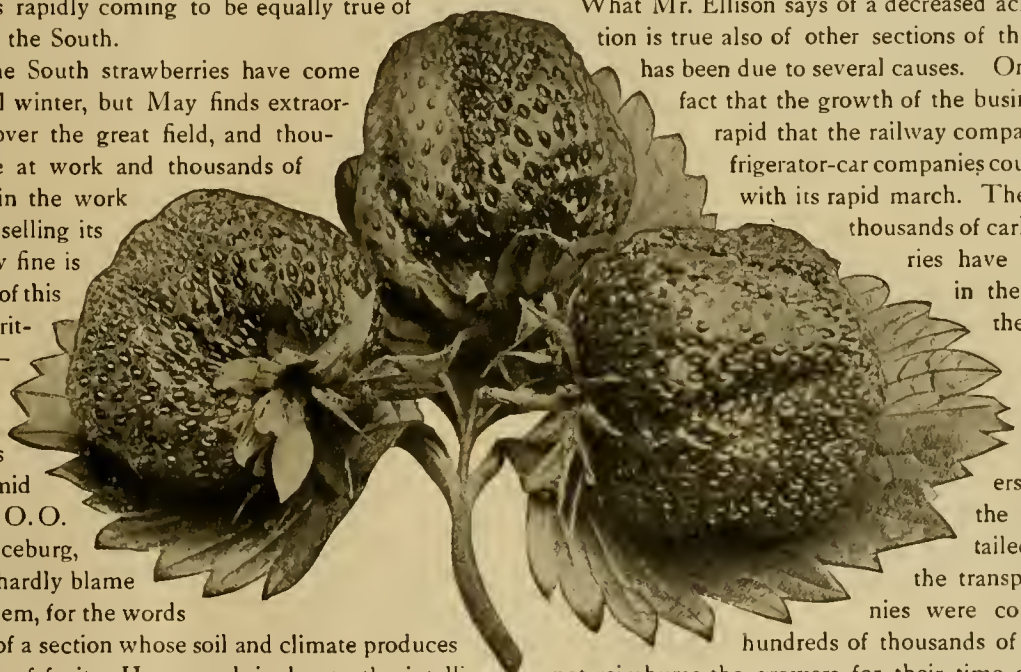
THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 5 Three Rivers, Mich., May, 1907 $1.00 a Year

STRETCHING from the James River in Virginia down to the keys of Florida and westerly and northerly to middle Texas and away up into Missouri, is a section that has come to be known as "Uncle Sam's Strawberry Patch," because within that area are grown many millions of dollars worth of the luscious fruit each year for the benefit of the people who live at the North as well as for local consumption. One writer refers to the patch that extends along the Atlantic seaboard as being as long as the railroads that occupy the long stretch from Virginia to the Gulf; and it is not a large exaggeration of the actual facts. And what is true of that portion of the South is rapidly coming to be equally true of the interior states of the South.

From the extreme South strawberries have come North practically all winter, but May finds extraordinary activity all over the great field, and thousands of pickers are at work and thousands of others are engaged in the work of transporting and selling its rich products. How fine is much of the product of this great region—a veritable empire of fruit—may be judged from the illustration that adorns our cover this month. It is a pyramid of Gandys grown by O. O. Ellison of Lawrenceburg, Tenn., and we can hardly blame him as we look at them, for the words of praise he speaks of a section whose soil and climate produces such fine specimens of fruit. How much is due to the intelligent care and cultivation Mr. Ellison's plants have received at his hands, the reader is left to judge for himself. That they are of primary importance every successful grower very well knows. In his letter to us Mr. Ellison says:



"The photograph I am sending you is of fruit of my own growing. The variety is the well-known Gandy. The size and quality is attributable to the soil and climatic conditions existing here. We are over 1,200 feet above sea level and the universal cool nights resulting tend to mature all fruit very slowly, which gives size, flavor and carrying qualities. E. D. Caward received the gold medal award at the St. Louis World's Fair on the strawberries he grew here, especial mention being made of the flavor. All things considered, I think this the best fruit section in the country.

"Last season I had six acres in bearing from which I picked and shipped 742 crates (twenty-four quart). Part of these were of the Klondike variety. I consider the Gandy the best berry to grow here for profit. I received from $2.25 to $3.00 per crate for entire crop. The acreage here was decreased last season, many going into cantaloupe growing, which, notwithstanding the extreme wet season proved, as a rule, a very paying crop.

"The cultivation of the strawberry followed in any climate will apply here. Mine were set the latter part of February two years ago. I used two hundred pounds high-grade fertilizer and two hundred pounds bone meal per acre the first year, following the succeeding year with one-half the amount."

It is a great satisfaction to receive from a practical grower, as Mr. Ellison has proved himself to be, such a clear statement of the methods employed to produce such results.

What Mr. Ellison says of a decreased acreage in his section is true also of other sections of the South. This has been due to several causes. One of them is the fact that the growth of the business has been so rapid that the railway companies and the refrigerator-car companies could not keep pace with its rapid march. The result was that thousands of carloads of ripe berries have been left to rot in the South because they could not find transportation facilities to take them North. Naturally, growers could not stand the losses thus entailed, and although the transportation companies were compelled to pay hundreds of thousands of dollars, this did not reimburse the growers for their time and trouble, and they gave up the business. But even a more powerful factor to discourage growers in the South has been the difficulty experienced in securing pickers—a difficulty by no means confined to the South. And still another, which is equally universal, has been the unwise haste of some growers who, without proper preparatory training in the production and marketing of fruit, set out large acreage, and even when they succeeded in raising a good crop, failed to market them to advantage.

However, these are, we trust, but phases incidental to any rapidly expanding line of enterprise. Certainly, with the huge and growing demand for the strawberry in every city in the United States, and a growing demand, also, for the extension of the time when the strawberry may be available, we shall see this work so systematized that strawberries shall be produced by hundreds of thousands of acres, both North and South, and so economically handled and so perfectly distributed among the markets as to make the production of strawberries on a commercial scale a permanent and highly profitable industry. Indeed,

reports from the South indicate that already the experimental stage has been passed, and that the growers are so arranging their systems of planting, cultivating, picking and marketing as to insure regularity and permanency. Acreage is being graduated to the conditions of the particular neighborhood, organizations are formed and forming under whose administration there must be uniform grading of fruit, and marketing is so conducted as to secure an evener distribution of the product and better prices. That there is as wide an opportunity in the North, where late varieties may be grown and a hungry public supplied weeks after the Southern crop has been consumed, we have the utmost confidence, and we need not say that we hope to see this great opportunity utilized to the full.

One Doctor's Experience with Strawberries

By W. H. Terrell, M. D.

IN January, 1904, after reading "Great Crops of Strawberries and How to Grow Them" I decided to send for some plants and try my hand at growing berries. At that time I lived in Stilesville, Ind., a small town of some four hundred people, four miles from the railroad. I am a practicing physician and at times, especially in the summer season, have quite a little leisure time from professional work. I always had cultivated a garden each summer for several years. Being a lover of plant life, I took great pleasure in working with the plants and vegetables. But I never had grown strawberries. I had only a small piece of ground at my command, so I ordered 500 plants, consisting of the following varieties: Warfield, Excelsior, August Luther, Tennessee Prolific, Haverland, Splendid, Sample and Brandywine.

The plants came to hand about the 1st of April in good condition, but I did not get them set until about the middle of April, owing to a spell of wet weather at that time. I got them planted in fine condition and they started right out to growing. The soil was fertile and well drained, having been used as a garden, and it had been well manured that winter. They were set in single-hedge rows. The rows were two and one-half feet apart and the plants two feet apart in the row. There were twenty rows fifty feet long, thus making a plot fifty feet square. Each plant was allowed to form two runners, one on either side. All other runners were kept cut off, except a strip about six feet wide across one end of the rows where they were allowed to become tolerably thickly matted, to make plants for next year.

The plants were well cultivated with hand-plow and hoe on an average of once a week during the entire season. All bloom buds were kept cut off as fast as they appeared that summer. The plants made a splendid growth that season, and when the ground froze they were well mulched with straw. They went through the winter in fine shape and in the spring they started out for business. It was a fine sight to see them loaded with bloom, and then the fine large berries that fairly crowded one another for room. That season we picked 500 quarts of berries besides what were eaten while picking—and that was no small quantity. I am confident that there would have been fifty or seventy-five more quarts had the plants not been allowed to mat at the ends of the rows as spoken of above. They were too thick there to make many berries. We sold $24 worth of berries from the patch that season beside what we ate and canned up, and we had all we wanted to eat—a family of six—at every meal and between meals; and we are all lovers of strawberries. We sold all we had for sale, at ten and fifteen cents per quart in our little town, and could have sold more. We also sold $13.50 cents worth of plants that spring.

At the end of the fruiting season the vines were mowed off and burned. The plants were well cultivated during the remainder of the summer and fall. They made a splendid growth and in the spring of 1906 bade fair to do better than the previous summer. The ends of the rows where the plants were too thick had been thinned out. Just after the bloom fell, and when the berries began to form and grow, a dry spell came on, one of the worst for this country and time of year, that we ever have known. I thought the crop of berries would be ruined, but finally rain came, too late to do the good it would have done earlier, but not too late to keep them from making some fine berries. We picked from the patch that season 508 quarts beside what were eaten in picking. We sold $30 worth of berries after having all we wanted to eat and preserve.

This is an account of my first experience at strawberry culture. I did all the cultivating of the plants and seeing after them during leisure hours from my professional work. I am a subscriber to The Strawberry and read it with a great deal of pleasure each month. If you think this narrative, or any part of it, of sufficient interest to publish in The Strawberry you may do so. Pittsboro, Ind.

We certainly do regard this little narrative of interest and of great value as well. Dr. Terrell has told it in such a way that others will understand the basis of his success, and it should not fail to inspire them to try their hand in this work. To sell $67 worth of produce from approximately one-twentieth of an acre of ground in two seasons, besides supplying a family of six with all the delicious strawberries they could eat; to produce a big crop under conditions such as were created by the unprecedented heat and drouth of 1906—to do all this from an investment in 500 plants is a record most encouraging, and the Doctor need not hesitate to engage in the work on a more extended scale. And add to all his material returns the joy that a nature-lover would get out of his experience—well, no one may measure that; it is of incalculable value, and beyond all cash returns.—Editor The Strawberry.

From Shoes to Strawberries

By A. D. Stoneman

I HAVE been a reader of The Strawberry from almost the first number, and it is to me almost the same as my bread and butter; and like others of the many readers of the paper, I think I am asked to give in my testimony and experience the same as we are asked to testify in a Methodist class meeting. For many years I had been in the shoe trade until a couple of years ago I traded off my stock of goods and am now a happy man, as I am growing and selling strawberries and raspberries.

While I was yet in the shoe trade I purchased a small piece of ground—about four acres—with the intention of working it by raising vegetables, etc., for the close confinement to the store and shoe bench made necessary plenty of out-door exercise. Along with other stuff to grow on the ground I thought to set out a small strawberry patch and also a few raspberries—a piece about the size of a town lot, 50 by 150 feet. That was four years ago. Do you know, that little piece of ground hypnotized or converted me, and now I have the whole four acres in strawberries and raspberries, or will have this spring, as I plowed up one-half of it last fall which I had in strawberries for two seasons and a little of it for four seasons. The white grub got into them and destroyed most of them. Then, too, I think it a good plan to plow up a patch after it has grown a crop for two or three years and put the ground into potatoes or beans for a season or two.

Now I put my berries in somewhat differently from other growers. My ground is quite high—some forty feet above water level, the river runs quite close to it. The soil is a sandy loam with a clay subsoil, just an ideal piece of land, I think, for berries. The wind from the northwest has quite a sweep across it, as the timber was all cleared away some years ago; so, to keep the wind from blowing off the mulching I put a stop to that by planting three or four rows of raspberries of either kind and then six or seven rows of strawberries, running the rows north and south so that I stop the straw from blowing away; also catching the snow which drifts in, and I think it a number two mulching.

And when I am done with the straw for the berry covering I fork it over into the rows of raspberries, which is a great benefit to them. Then, too, the raspberries make a fine shade in which to set your crates and boxes of strawberries to protect them from the hot rays of the sun.

Last season and the season before I set out a new patch of berries of about two acres and I see Mr. Beatty is taking my plan of setting them out or advocating it, and that is by setting the berries four feet apart in rows and planting potatoes between, which is I think an excellent plan where one has as fine a soil as I have. In that way I do not lose the use of the ground for one season, and when I am working the potatoes I am working the berries also. Your potatoes, if you plant the early varieties, can be dug and the ground all leveled down in plenty of time for the berries to run out as far as you want them, and if there are any grubs they will most likely be in the potato hill and you will find them. And woe to the grub when I see him! Then, too, I had some late-hatched chickens and I put the old hen's coop near where I was digging the potatoes and those little chicks were soon busy helping me kill grubs.

By the way, if W. H. R., Cascade, B. C., would put a few hens with little chickens in his strawberry patch they will clean out the cut-worms. Those little chicks will be out of their coop at the break of day and gather up the worms before they have time to get back into the ground. The worms do their work at about day-break.

I am putting quite a large quantity of ashes on my berry ground, which I think is very beneficial, and it is an enemy to the white grub. I am intending setting out some 8,000 plants of different kinds this spring and think the most of them will be thoroughbreds. If I can help any one in giving them any pointers in the line of growing berries of either kind—strawberries or raspberries—I want to do it.

Quasqueton, Iowa.

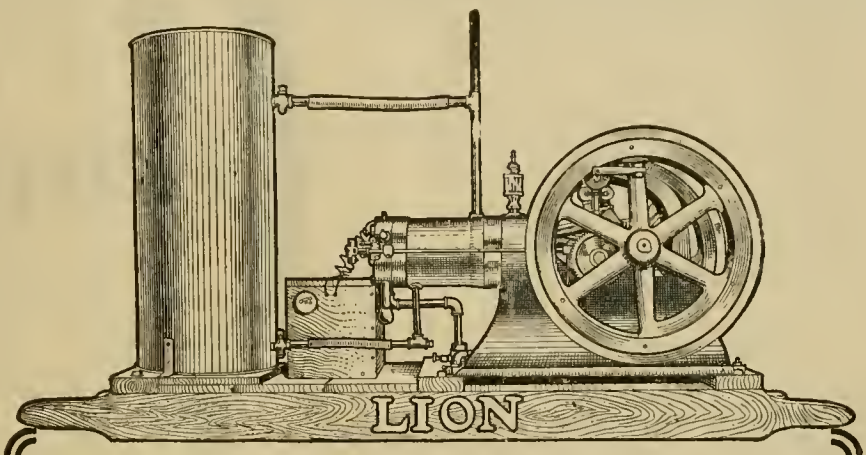
Picking and Marketing Strawberries

HOW shall I handle my pickers? is the question that comes to us frequently at this season of the year. The Strawberry has in the past had something to say on this subject. Herewith we publish the method outlined in Rural New-Yorker by H. W. Jenkins, an extensive grower of strawberries in Missouri. Mr. Jenkins says:

"Picking and marketing strawberries is a business of itself and requires a man of energy with the skill and genius of a Japanese major-general to manage successfully a gang of pickers on the one hand and a lot of impatient customers on the other.

"My pickers are each given a number, their names and numbers entered on a pass book, and each is required to sign his name to a printed berry ticket containing printed rules, which specify that all work shall be done quickly and neatly. No fussing, swearing or playing is allowed in the berry field, and 25 per cent of wages held back till the close of the season. Anyone discharged for misconduct or who quits the job before the work is finished, loses the 25 per cent. On going to work each picker is furnished with a picking stand and seven quart boxes and also given printed slips containing their number, one of which the picker is required to deposit in the bottom of his box. This way each picker's berries can be identified and traced. This keeps them all on their guard to do good work. When the boxes are filled, the pickers bring their berries to packing shed and get their credit, which is always punched in their tickets kept by them. When the amount of $1 is punched, then a new ticket is issued.

"An overseer stays with the pickers at all times and every row begun must be



The Lion Engine

Acting on the theory that "testing is proving" we will send any responsible person, on certain very easy conditions, one of our three h. p. gas or gasoline engines on **10 days test trial.**

This engine is **no experiment,** but has been proved by actual use to do any work (where the rated amount of power is required) in the most practical, reliable, safe and economical way.

On the farm it proves especially valuable for operating feed grinders, wood saws, cream separators, corn shellers, pumps, etc. It furnishes ideal power for operating machinery used in mills, shops, printing offices, private electric-light plants and water-works. Speed can be changed from 100 to 600 revolutions per minute while engine is running, which is a very desirable feature.

DIRECT FROM FACTORY TO BUYER

We sell direct from factory to buyer, thus saving you all middlemen's profits. **Lion** engines are so simple and practical in construction that with the explicit directions which we send with each engine, it is unnecessary to have an expert come to your place to set it up and start it for you. Get a **Lion** engine and increase your profits with much less labor and time devoted to the work. Write now for full information concerning the **Lion** engine. Please mention this paper when you write.

Write us a Letter Like This:

BALLOU MANUFACTURING CO., Belding, Mich.
Gentlemen:—I am about to purchase a gas or gasoline engine for_____ purposes and wish you to send me full particulars about your approval offer as advertised in_____
Yours very truly,
Name_____
Town_____
State_____
Street No. or P. O. Box_____
R. F. D._____

When writing, please **state definitely** for what purpose you wish to use this engine and whether gas or gasoline is to be used for fuel. **This information is very important to us.**

Please remember we send the engine, not the **engine agent.**

BALLOU MANUFACTURING CO.,
Successors to Lyons Engine Co.
BELDING, MICH.

finished before allowed to begin another. When pickers get tired, they are given a few minutes' recess to play and rest. At the end of the season pickers are all paid at one time what their tickets call for in checks, payable to order. It makes a boy feel like a man to step into a bank, indorse a check and cash it and get his money all in a pile. Our berries are all sorted. All mashed, rotten or dirty ones are taken out. We use clean boxes, putting, if anything, the largest berries in the bottom.

"With our regular customers we use a card, which is so arranged as to hold both debit and credit, the sum of $5, which amount is also punched out. The customer is charged with the full amount in our book, but settles at the end of the season according to the amount punched on card. The customer retaining the card knows at all times what he owes. Our rule is: well-filled boxes, clean and in order. We try to keep our customers pleased and hold them from season to season and have generally succeeded."

Fresh Strawberries as Medicine

By Edgar L. Vincent

STRAWBERRIES always used to make me sick when we had to buy them. I very rarely used to try to eat them at all. But after we came on the farm and had them of our own growing I never had any trouble of that sort. For some years prior to that time I had been troubled with weak digestion, so that I could not eat much fruit of any sort, or thought I could not.

Things changed when we had berries of our own. We set out several varieties, among them some that ripened early and others that came along later. The moment the earliest kind began to get eatable I would go out into the garden and eat all I wanted before breakfast. There was sure to be a nice dish of the beautiful fruit on the table at breakfast, and every other meal of the day, for that matter, and I ate my share of them. The last thing at night I would go out and take my fill of them right from the vines, and I tell you they did taste good!

And the best of it was that they did not hurt me in the least. On the contrary, they were better for me than any medicine I could have procured from the doctor. How do I account for it that, whereas the berries I used to buy did me harm, those we grew ourselves had the opposite effect? I believe it was because they were fresh and not wilted. Many times the berries we had bought had to be shipped a long distance, but our own were fresh and that made all the difference in the world. Berries should always be eaten fresh if possible.

Binghamton, N. Y.

EVERY year the question of box and crate materials becomes of increasing interest and perplexity, but with the higher price for the crude materials new inventions constantly are being made which tend to preserve the balance and keep down the cost to the consumer of fruit packages. Among those who are thoroughly up to date in this work is the Pierce-Williams Co., who have extensive works both at South Haven, Mich., and Jonesboro, Ark. You cannot make a mistake by getting into close touch with this company. If you are in the South, send for information to Jonesboro, Ark.; if in the North, to South Haven, Mich., in either case mentioning The Strawberry.

IN the entire realm of horticultural machinery it is doubtful if in any single branch greater progress has been made than in mechanical accessories to potato culture. And standing in the front rank of invention and manufacture of these practical aids is the Aspinwall Manufacturing Co. of Jackson, Mich. The machines introduced and made by this company have brought about a revolution in potato production, and make possible the handling of ten acres with little more labor than formerly was required to produce one acre. Beginning with the cutting of the potato for planting (which is done more accurately and economically in the matter of seed-saving than may be done by hand) to the digging of the ripened tuber, there is not a feature of their production but the Aspinwall Co. has invented a machine that saves labor and money. What is true of potato machinery also is true of this company's excellent spraying machines, and we are sure our readers will be well repaid for sending for this company's catalogues, if interested in either subject.

The Empire proves its claims

CLAIMS are *words*, proofs are *facts*.

Mere claims have often sold goods. Proofs are a record of dollars made.

You, or any one else, don't want the cream separator that *claims* the most. You want dollars from your handling of milk.

Therefore you want the *proved* separator, the dollar-making

Frictionless

Empire Cream Separator

Here are some *facts* that will interest you: The Empire

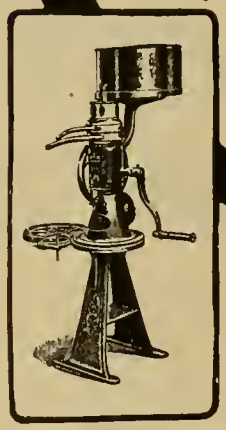
Turns the most easily—is practically frictionless;—

Is most easily washed—a few simple parts without a cranny or crevice in them;—

Gets all the cream, and the highest quality of cream at that;—

Is durable — will not get out of order — will cost you practically nothing for repairs.

These facts spell dollars for you, if you give them the opportunity.

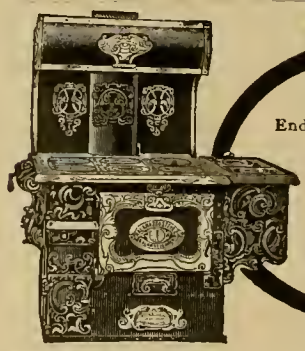


Let Us Prove Them

Send for our new catalogue and proofs. Ask for our free dairy books too. They cost you *nothing*, but will show you where you can make *dollars*.

Empire Cream Separator Co.,

Bloomfield, N. J. **Chicago, Ills.**



"A Kalamazoo Direct to You"

End your stove worries! Get a Kalamazoo Stove or Range on a

360 DAYS' APPROVAL TEST

and a $20,000 bank guaranty on **durability, convenience and economy of fuel.** You cannot get a better at any price, but you save from $5 to $40 by buying from the actual manufacturers at

Lowest Factory Prices—We Pay the Freight

At least get our prices and compare our offer. Send postal for catalogue No. 348.

Kalamazoo Stove Co., Mfgrs., Kalamazoo, Michigan.

Our patent oven thermometer makes baking and roasting easy.

WHAT MAY BE DONE WITH A HAND CULTIVATOR—J. D. ULRICH IN HIS PATCH AT THREE RIVERS

Intensive Strawberry Culture---The Value of Cultivation

By Frank E. Beatty

IN order to comprehend the necessity of cultivation one must understand the effect it has upon the soil and upon plant life. In this article we shall discuss the advantages of thorough cultural methods, rather than the importance of it, because I believe almost any berry grower will take more interest in giving his plants thorough cultivation after he understands the reason for doing it. There is a reason for doing everything, and the better we understand the reason the more capable are we of carrying the work to success; and we enjoy the work more, too. Even the little boy who hoes in the garden or gets in the wood has a reason for doing it, and that reason is generally because his father threatens to larrup him if he does not do it. And some growers cultivate their strawberries with about as much interest as the little boy does his work, who does it rather than be laid across his father's knee. Especially those boys who have fathers who do not believe in doing things under cover.

THE SINGLE HEDGE SYSTEM OF PLANT SETTING

The single hedge is made by layering the runners in a straight line. The three large hills are mother plants, each one sending out two runners, as shown in picture. The distance for setting will depend on the variety. In the hill system set the plants about fifteen to twenty inches apart in the row and have the rows about thirty inches apart.

It does not matter how well the soil has been prepared in advance of setting the plants, it will settle down and become hard. The rains will run the soil grains together; and after the sun shines upon it a crust will form, leaving the surface almost like cement, thus preventing the desired amount of air from circulating through the small air spaces which always are under the crust. The reason for cultivating after each rain just as soon as the soil will crumble, is to prevent the forming of any crust. The cultivator teeth will make a loose soil mulch which will not only aid in conserving moisture, but also will keep the soil at more even temperature. Scientists claim, and I am sure it is true, that bacterial germs will work more actively when the soil is kept at an even temperature. Thus it will be seen that there are seven reasons for cultivating after each rain:

1. It prevents the forming of crust.
2. It admits air in sufficient quantities to keep bacteria active.
3. It aids in retaining an even temperature in the soil.

THE DOUBLE HEDGE SYSTEM OF PLANT SETTING

In forming a double hedge row, allow each mother plant to make four runners, layering them zig-zag or X fashion, as shown in picture. Keep the vacant spaces between young plants well hoed to prevent the forming of crust. Varieties making long runners can be set farther apart in the row than short runner makers, allowing them to make eight plants instead of four.

4. It prevents moisture from working so near the surface as to allow it to be wasted by evaporation.
5. It stops the moisture brought up by capillary action, which is charged with mineral matter, at a point where the soil is warm and where it can be put into available form for the plant's immediate use.
6. It disturbs weed seed while in the germinating stage.
7. It breaks the sweep of the wind and prevents it from blowing sand against the plants, which would injure the leaves (leaves are the stomach, liver and lungs of the plant), besides causing a waste of plant food that might lie on the surface.

After this loose soil mulch lies undisturbed for eight or ten days it becomes settled, letting the moisture work up so near the top that much of it is carried away by the wind and the sun. This settled condition of the mulch also increases the capillary power to such an extent that the lower moisture is soon exhausted. And here are seven reasons why cultivation should be repeated every seven or eight days whether it rains or not:

1. It disturbs the old dust mulch and fixes a new one.
2. It stops the escape of moisture and makes capillary action normal.
3. It destroys all weed seed that have germinated since the last cultivation.
4. It mixes with soil the plant food that has been brought to the surface by moisture.
5. It keeps bacteria, moisture and plant food in a harmonious condition, supplying plants with balanced food, and keeping them in a continuous growth.
6. It builds up a heavy vegetative

growth and crown system, which in turn will develop productive fruit buds, and lots of them.

7. It keeps plants from starving and becoming stunted in a dry time.

We ought not to expect any more from plants than we may from animals. Take a calf, for example. Feed it heavily and give it the best of care for a few weeks, then because you are busy or become negligent, starve it and give it no care for a week or so—what would the result be? A stunted calf, of course. The same is true of plant life. A strawberry plant gets just as hungry for its kind of food as does the calf for its mainstay, and to overfeed it one week and neglect it the next will result in failure with strawberries just as it does with the dairy herd. Make your plants your pets and treat them as pets, and if you cannot learn to love them enough to make them your pets, you never will make a big success in the strawberry business. I never heard of a man who hated cows gaining a big reputation in the dairy business. Love is a wonderful thing. It makes rough places smooth, and dark days bright. All animals know the difference between love and hate, and I believe plants do also. At least they respond liberally to good care and lots of petting.

One year ago I bought a saddle horse that had been abused and neglected until he became poor and ill-natured, and would fight his master. To-day Captain is one of the most beautiful and best-natured saddle horses in Michigan. He is fat, sleek, and affectionate. He hands me his right foot and shakes hands before I mount him, and again after I dismount. He will pace, fox-trot, square-trot, single-foot and gallop, or walk, and quickly will change to any of these gaits. He understands the gait I wish him to go by a certain move of the rein. This great change in Captain's life was brought about by affection, the currie-comb, good feed and good care. Just try it in your strawberry work and see if the plants do not show it as quickly as did this horse.

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES

The IDEAL IN REALITY

Patented Nov. 17. 1903.

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all** who have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crushed. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the **flat** condition.

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

Sales during 1906 in **31 states and some foreign countries,** and **1,400 new names** were added to our already large list of customers. **Communication with 47 States.**

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents.

Patentee will sell his rights or organize a special company. Demands are too large for present arrangements. All who are interested, write above company.

ONE well-known authority on the subject, Harry Snyder, professor of soils of the Minnesota Experiment Station, says that the indirect value of manure is greater than that as a fertilizer. Chemical changes result from the contact of decaying manure with inactive mineral food in the soil, which render it available, besides producing humus. Continuous grain farming uses up humus, making it less capable of holding moisture, and as there is no decay of vegetable matter, the time arrives when the soil must have a long period in which to recuperate itself.

ANDREW REESH

MANUFACTURER OF BERRY BASKETS AND BERRY CRATES

All sizes of berry baskets from half-pints to the standard quart. **All Machine Made, Bottom Stapled** and made of Hard wood or Basswood. Send for circular and prices.

ANDREW REESH, New Springfield, Ohio

Success with Twin Double-Hedge Row

By Mrs. A. Andrews

HAVE read The Strawberry journal the past year with great interest and think it the very best fruit journal printed, as it deals with the strawberry alone and does justice to the work in every detail.

I have grown strawberries the past six years, and have been very successful. Have always grown matted row simply because I knew of no other or better method. Last spring after reading The Strawberry, I decided to try the Edgerton plan of setting, set two and one-half acres, twenty inches between narrow rows and three feet between wide rows. Runners were layered to form the single-hedge row and all runners cut off after that and I followed The Strawberry method of cultivating. Last fall the field was a picture. The plants were thoroughbreds, and they certainly showed their breeding as I never have had plants that grew so thrifty.

I am ready to endorse all you say in regard to growing fancy fruit, and too much cannot be said about packing carefully. My berries have the reputation of being the very best on the market; in fact, they now have a reputation of their own. I set my own price, and never have grown enough to supply my customers. This

year I am looking for a big crop of fancy fruit, and will report my success later. Will also send some views.

I wish the strawberry and all of its readers the best of success, with the grandest of all fruit the strawberry.

Vassar, Mich.

GROWERS of apples on the Pacific coast have fine prospects. A manufacturer of apple wrappers in Seattle has recently taken orders for ten cars of the small squares which are used to wrap apples before packing them for shipment. This indicates that the largest crop ever gathered is expected this fall.

Notes From the Strawberry Field

By Edgar L. Vincent

MAY is the month, in many parts of the country, for setting out strawberries. This is largely true of places all along the latitude in which The Strawberry is published and for a belt fifty or one hundred miles each way, north and south.

The choice of a location for the berry fields is quite an item. Where the land slopes to the southward one may expect berries to ripen earlier than where the trend is to the northward. Low lands are more liable to be visited by frosts than those which are higher. On our own farm we have two fields. One is near the house and the other out under the shadow of a piece of woods. The field near the house often catches the late frosts while the one which is protected by the trees escapes. It is, for that reason, a good plan to have two or three pieces set out to berries.

Our land is a clay loam, and it certainly bears fine berries. Just to look at some of them when they are ripening is good for sore eyes. This kind of soil does not bring berries to maturity quite as early as would a warmer one, but we can afford to wait a week or two, if we get good ones when they do come. But don't stop because you have not a clay loam. If your soil is sandy, you will beat the rest of us having early berries. You may not get quite as many to the acre, but you will get into the market earlier.

If you have a piece of ground that has not been plowed in years, or a little patch where logs and stumps recently have been cleared out, you can have some berries that will make your eyes stick out. They just love such a soil. There is enough of the native fertility of the soil there to give you the best kind of results.

But if your land is old, you will have to use some kind of barnyard or commercial fertilizer. Nothing is better in this line than manure from your own yard that has been well rotted. Try to get that which has lain in the heap till all the weed and other seeds have been destroyed. If there is anything that will discourage a man it is to have his berry plants all swamped with weeds the first pop. And then, if you have hard-wood ashes these are splendid to scatter along the rows. I mean ashes that have not had the strength all taken out of them by water. I would not give much for leached ashes for anything.

It is the potash in the ashes that does the good, so if you have no unleached ashes, it is a good plan to buy some kind of commercial fertilizer that has a liberal percentage of potash in it. One advantage, from the viewpoint of beauty, and that is a viewpoint that attracts us all more or less, in favor of the potash is that it gives us fruit that is more brightly colored than fertilizer that has more nitrogen in it. The leaves are larger on the plants, too, and some have thought the plants were freer from rust. But the folks down in Florida have found that they must not use this for at least three months before the shipping season begins, as it is apt to injure the quality of the berries when sent for a long distance.

After your plants come, keep them where they will not dry up till you get around to set them out, which ought to be at the earliest possible moment. Mark out the land three feet each way if you are to grow for your own use in a small way. Most commercial growers set their plants three feet apart one way and let them run into a mat of plants the other way. More berries can be picked from the matted rows.

The best thing I ever found to make the holes with is a small trowel. Rim a hole out big enough to take the plant with the roots spread out. Some do set them deep down into a small round hole, paying no attention to the position of the roots. Seems to me that is not the way I should want my feet cramped up. Give the plants a chance to push out in every direction.

Pack the soil around the roots well. Have the bottom of the stalk just about even with the top of the ground. If you get it too deep it is apt to rot and die. Then give every plant a generous drink of water. A dear old strawberryman, now gone over to the other side, said what strawberries want most is water, and

AN abundance of fruit of highest quality, finely colored and flavored, is the direct result of supplying a complete fertilizer containing from 7 to 12 per cent. of POTASH to the tree, vine or bush.

"Plant Food" is a book well worth a place in the library of any fruit grower. We will gladly mail it to all applicants.

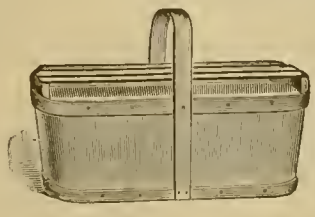
GERMAN KALI WORKS
93 Nassau Street, New York

Established in 1869

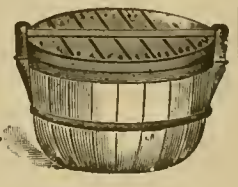
BEST & CHEAPEST BERRY BOX AND CRATE IN THE WORLD
MANUFACTURED AT
THE MICHIGAN BASKET FACTORY OF
WELLS HIGMAN CO.
ST. JOSEPH, MICH.
SEND FOR ILLUSTRATED PRICE LIST.

Experience Counts

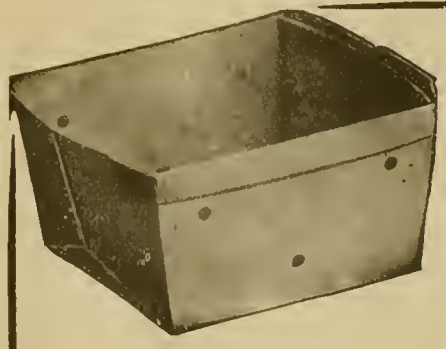
Headquarters For
BERRY BOXES
Peach and Grape Baskets
Also Melon Baskets



Fruit shipped in our packages insures highest prices.
Order boxes now and make up at your leisure.
Write us for Berry Box Machine.
Illustrated Price List Free.



Wells, Higman Company
Box 10, ST. JOSEPH, MICH.



The BASKET with the RIM

That is the distinguishing feature of the
WAX LINED PAPER BERRY BASKET
The height of Clean, Odorless, Tasteless, Pure and Perfect Basket Perfection

IF YOU ARE A BERRY GROWER you want our Basket and we want your name

MULLEN BROS. PAPER COMPANY

Send for FREE Sample and Catalogue of this 20th Century Basket Dept. B St. Joseph, Mich.

then water and then some more water.

Make up your mind that you will keep the runners off the first year. This will mean business, for it "beats all" how strawberries do seem to want to send out runners. They are just like all good business houses in that respect, and they know it pays, but what we want the first year is strength. After we get that we may look for berries.

Finally, keep the weeds down, or they will down your pretty plants.

Binghamton, N. Y.

LOOK out for the bogus seed and plant men. One fraud practiced for many months on amateur gardeners, recently was exposed by a young woman of New York, the exposure leading to a man named Reiber obtaining the limit of one year and $500 fine. This impostor advertised, in a gorgeously colored catalogue, a marvelous new flower that had been "discovered in Japan, American rights bought for $50,000. A very small quantity of the seed will be available this season and we shall dispose of it to early comers at $1 the package." Hundreds of amateurs sent their dollar but none of the seeds (?) grew. Miss Reineix, after one failure, decided to investigate and sending for a second package submitted this to a professional florist. He pronounced the contents of the packet to be palm leaf fans broken into seed-like fragments and not seeds at all.

AS spring advances, most of our readers are taking an active interest in garden, farm and lawn. This is as it should be, for now is the time to make final plans for the setting out of trees, shrubs, etc., and the planting of vegetables and flowers. Those who contemplate setting out young trees should give special care to the selection of hardy, vigorous stock which has been properly started. In this connection we take pleasure in directing attention to the advertisement of Arthur J. Collins, the well-known nurseryman of Morristown, N. J., in this issue. We advise those who are interested and have not already done so to write at once for Mr. Collins' attractive, interesting booklet entitled "For Horticulturist and Gardener," which is fully illustrated with many views of trees, fruits, flowers, etc. This book is a veritable mine of information and will be of great assistance in making spring plans.

WHAT NEXT! One of our advertisers, Mr. R. F. Bieber, General Manager of the famous 1900 Washer Co. of Binghamton, N. Y., is so enthusiastic over the work done by his wonderful Gravity Washer that he makes a wide-open, unlimited offer to let the machine do all the family washing for a month on free trial. Mr. Bieber has sold a great many washers and everybody who has tried the Gravity Washer has been so delighted with the work it does that he says he will be glad to send out washers on free trial to any reliable reader of our paper. He feels sure that anyone who lets the Gravity Washer do four big washings as a trial will want to keep it. So he not only takes all the risk of the full month's free trial, but even pays the freight. You need not send him any money in advance or sign any bonds or make any deposits. It washes the clothes by gravity power; all there is for the hands to do, when once the washer is set going, is to guide its movements, which is nothing more than play for a child. The hard part of the washing is all done by the machine itself. It does a washing so quickly that you can hardly believe your own eyes. Washes a big tubful of dirty clothes spotlessly clean in six minutes! It washes fine lace curtains without tearing them. Yes, and it will even wash carpets! Mr. Bieber states that any responsible person wishing to let the Gravity Washer do a month's washing as a free test can get a machine on free trial, without being obligated to keep it unless perfectly satisfied. He also says he is not particular whether parties who decide to keep the washer pay for it by the week or by the month. He lets the buyer choose the way most convenient. He says: "Pay me out of what it saves you." You can get full particulars of this liberal free trial offer and "Pay as it Saves for You" plan of selling by sending your name and address to Mr. Bieber. Address your letter or postal to the General Manager of the 1900 Washer Co., Mr. R. F. Bieber, 510 Henry-St., Binghamton, N. Y.

A GOOD THING to have before you when selecting a sprayer is the new complete catalogue of The E. C. Brown Co. This company is an extensive manufacturer of all styles and sizes of sprayers, operating one of the largest plants in the country devoted entirely to this business. They sell direct to the user at money-saving prices, and the quality of their line is too well known to need comment. The Brown sprayers are known as the "Auto-Sprays" and are used and endorsed by the U. S. Government, and many of the State Experiment Stations, to say nothing of thousands of fruit-growers and general farmers all over the country. To those who have heavy spraying work before them we want to recommend an investigation of the Auto-Spray No. 28. This is a traction-power outfit, which combines great power with remarkable simplicity of operation and economy in the use of solution. It is equal to the very largest operations, with power to spare, and the best of it is that it costs nothing to generate this great power. The power is produced by gearing the pump to the wheels of the truck. It is built to last a life-time, and so simply constructed that the inexperienced find no difficulty in operating it. Send a postal for their free catalogue. Address The E. C. Brown Co., 61 Jay St., Rochester, N. Y. This catalogue is more than a catalogue—it is a book of ready reference in anything pertaining to spraying.

FOR nearly forty years the house of Wells-Higman Co., St. Joseph, Mich., has stood for high-class goods and a square deal in fruit-package matters. New processes of manufacture, improved packages, up-to-date methods in every way, have been the constant aim of this company, with the result that age has only served to strengthen their hold upon the trade, and old customers are their best customers. Get acquainted with this company by sending for their printed matter.

PAPER is coming to occupy an important place in the fruit-package interest, and "the basket with the rim," made famous and popular by the Mullen Bros. Paper Co., of St. Joseph, Mich., is everywhere recognized as an invention of large value. Strong, durable, light, and always ready for business, this berry box is winning hosts of friends every year and extending its field by leaps and bounds. Mullen Bros. will be glad to tell you all about the box if you will send them your address.

FRUIT PACKAGES

THE PACKAGE SELLS THE FRUIT

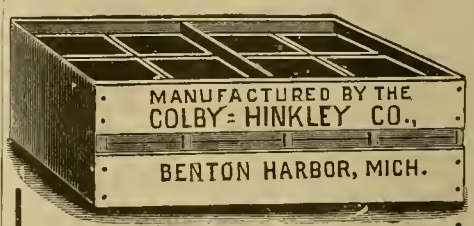
KEEP this in mind when ordering your packages for the coming season. Remember that we have been making Fruit Packages over a quarter of a century and know how to make them right.

We use the best timber we can get, make it up with modern machines, and the result comes as near package perfection as can be attained.

Order early wherever you buy, but don't forget our Trade Mark.

We make all kinds of boxes and baskets. Send for catalogue and price list.

THE PIERCE-WILLIAMS CO.
SOUTH HAVEN, MICH. AND JONESBORO, ARK.



BERRY BOXES
BERRY CRATES

In flat or made up. All kinds of
BASKETS

BEST GOODS RIGHT PRICES

Send postal card for catalogue

Colby-Hinkley Company
BENTON HARBOR, MICHIGAN

Fruit Packages of all Kinds

Before ordering your supplies write for our Descriptive Catalogue and Price List.

BERLIN FRUIT BOX CO.,
Erie Co. Berlin Heights, Ohio.

BERRY BASKETS AND HALLOCK BOXES

Also Beekeepers' Supplies sold at a reduced price and shipped from Central Michigan. Send for 32-page catalogue free. W. D. SOPER, Jackson, Mich.

TYPICAL SCENE IN THE STRAWBERRY FIELD OF NORTH CAROLINA—DELIVERING STRAWBERRIES TO NORTH-BOUND REFRIGERATOR TRAINS

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter VII—In which is shown the Value of Executive Capacity in a Foreman

THE arrangements I had made for marketing the crop of berries that had just been harvested were very satisfactory indeed, so far as my fancy berries were concerned, but my mistake this time was in failing to provide for the sale of my second-grade berries. This did not bother me much, however, as I knew that it would be an easy matter to decide upon a plan for selling the second-grade fruit at a fair price. I was too busy just then to give it any thought. My whole time was taken up in overseeing the work in the field where several men were busily engaged in burning over the old fruiting beds and narrowing down the rows for second crop. The fire had swept over all the fruiting beds except one acre which was situated just west of a raspberry patch, and the hay-tedder was being rushed over this acre as fast as the horse could take it. The wind was blowing quite hard, and everything was so favorable to burning that I was rushing every man on the farm to the very limit.

From the appearance of the clouds, which were rapidly spreading, I felt pretty sure that everything was going to get a good soaking before sundown. When the hay-tedder was far enough ahead I ordered the men to set the mulching on fire. Two men started for the west side, one at each end of the patch. They filled their forks with straw and set it on fire, and started towards each other, going almost on a run. The burning straw was held close enough to the mulching to set fire to it as they went. The wind was blowing much harder than I had realized, and in a second of time the flames were leaping higher than our heads. This frightened the horse hitched to the tedder, and he came across the field between a trot and a run. I tell you that machine kicked straw higher than an old rooster ever kicked gravel when scratching for his favorite biddy, but the driver held on to the lines and kept him in place. I judged that the driver was in about as big a rush as the horse. The flames were getting close enough to make it rather uncomfortable for both.

This little excitement started everybody to laughing. I have heard of smiles that never wear off, but this was not the stick-fast kind; at least it soon changed to a decidedly serious expression. The flames had leaped over into the raspberry patch. These also had been mulched around the hills with coarse strawy manure. Everyone of us was soon fighting fire like a Chicago fire department. Our only fire extinguishers were pitchforks, and the harder we beat the flames the faster and more greedily they licked up the dry material. The green foliage on the berry bushes were crackling like eggs roasted in a country fire-place. The raspberry patch was just south of our house, and it was not long until the "cook" was on the scene with two buckets of water, and in her excitement she dashed the water where there was no fire, and not likely to be any, and rushed to the pump to refill the "fire department" she was operating. By the time she returned the fire was subdued and so were most of the raspberry bushes, and, to be honest about it, the spirits of all the firemen were subdued too. Our clothes were wringing wet with perspiration, and eyebrows were scorched a little.

"Why didn't you think of water in the first place?" my wife asked, almost out of breath.

"Well, if you think the water you carried had anything to do with putting out the fire just go and look where you threw it."

The joke was so good that she laughed harder than any of us. By this time the men who had so faithfully fought the fire came up to where my wife and I were talking, and they expressed their regrets of my loss.

"I greatly appreciate your sympathy as as well as your untiring efforts to save my berry patch, but I am not going to lose any sleep over the raspberry patch. If the bushes are killed we will put the ground in shape for strawberry plants, and will set the whole block in Clydes, Haverlands and another good early bisexual next spring. Boys, I believe the gain in getting the strawberry field burned over before the rain will be greater than will the loss of the raspberry patch."

It was now raining so hard we had to seek shelter in the packing house, and it continued to rain until the next day. Just as soon as the ground was fit the strawberry rows were narrowed down with a bar-shear plow, and two teams were put to work hauling manure, which was spread

I THINK The Strawberry is fine, and well worth the price. I have found out more about the real life of plants since reading it than I ever knew before, and see a great many mistakes I had made. Anyone who is trying to raise berries and make a success cannot do without it. Sorry I did not send for it before.

H. E. SNEDEKER.
Waymart, Penna.

between the rows. This was a new experiment with me, and it proved to be the proper thing. In a few weeks those o'd remodeled fruiting blocks were almost up with the spring-set plants.

We had plenty of rain that season, and everything was making splendid growth. Weeds and grass were coming in for their share of the foods which are so enticing to plant life of all kinds. And it was only by pulling weeds by hand when it was too wet to cultivate that our plants were kept from being crowded out by them. The cultivators and hoes were kept on the move when the soil was in condition for the work.

I staid right with my men until the latter part of August at which time I was to go to Spokane, Washington, to spend a few weeks with a friend. Before leaving for this anticipated pleasure trip, I took my foreman all over the farm and explained to him just what I wanted done, and how to do it. When the day came for me to start I left with the full assurance that everything would be run in apple-pie order. But the very first letter I received from my wife carried the news that the foreman had left the same day I did, and had never shown himself on the farm since. But she told me not to worry; that Dave Evans was taking right hold of the work; and she believed he was going to be able to keep things going nicely until my return. Dave was only a boy, but he had worked for me for years and he understood my way of doing things pretty well. There I was, two thousand miles from home. My friend and I talked the situation over, and finally I decided to stay my visit out. Thirty days were spent in Spokane, and in the mining district of Sumpter, Oregon. I was having a good time fishing and was getting a much-needed rest. But good times must come to an end, and it seemed only a short time until I was again on the train headed for Covington, at that time the dearest spot on earth for me. It was a three or four days' ride, and each day seemed like a week, for I was getting anxious to see how Dave had managed things. To my great delight I found the farm and everything on it in prime condition.

"Well, who would ever have thought that Dave could have done so well without any instruction," I said to my wife.

"Yes, and the best of it is, he never bothered me about anything; he just went ahead and ran the farm as if it were his own."

As this recommend came from my wife, I felt sure that Dave was the coming foreman of the Beatty farm. That is just the kind of foreman I want. A foreman is not a foreman at all unless he does possess the ability to take the lead and run things the same as he would his own. And it is a fact that Dave Evans was my foreman for nearly one year and he didn't know it. That is, I never had told him that he was foreman, and he remained foreman until I sold my Covington farm. And the man who purchased my farm arranged with me that Dave was to stay with him as his foreman for a year, which he did. Last September I sent Dave this telegram: "Come to Three Rivers at once. Good place waiting for you on the Kellogg Strawberry farm." And he now has full charge of all the plant setting and hoeing on this farm, the largest of its kind in the world.

Thirteen years ago little Dave Evans started with me as a berry picker, and by faithful attention to his duty he has worked himself into a trustworthy position at a good salary, with excellent chances for promotion. This shows that it pays a young man to work in the interest of his employer.

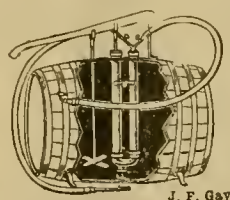
Well, to go back to my plants again, they grew to mammoth size and went into winter quarters in the best condition I ever had seen plants at mulching time. Every plant was well developed, and the crowns were large and lots of them. We mulched earlier that fall than in previous years. Every plant on the farm was covered before Christmas, and my prospects for the coming harvest were the most flattering since I had become a strawberry grower.

(Continued in June Number)

Some Causes of Plants Dying When First Set

By S. H. Warren

MANY plants die because they are kept too long after being dug before transplanting. Some die because set too deep and the crown or center of the plant is covered. But in a dry time more plants die from a lack of pressure on the soil about the roots than from all other causes. In a wet season they will live if left on top of the soil with no earth to cover the roots. Plants out of



Defender Sprayer

All brass, easiest working, most powerful, automatic mixer, expansion valves, double strainer. Catalogue of Pumps and Treatise on Spraying free. AGENTS WANTED.

J. F. Gaylord, Box 18 Catskill, N. Y.

Horse-Power Spramotor

Will pay for itself the first season in removing wild mustard from your fields.

Automatic in action throughout; everything under control of driver without stopping.

Machine automatically stops at 125 lbs. pressure, starting again at 100 lbs.

Tell us your needs. You will get expert advice.

Our 86-page Treatise D free. Agents wanted.

SPRAMOTOR CO.,
BUFFALO, N.Y. LONDON, CAN.

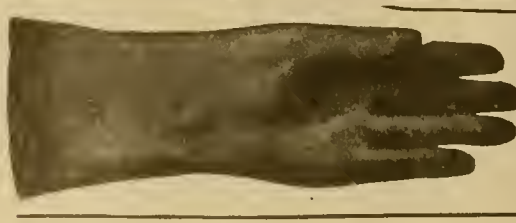
SPRAYING STRAWBERRIES

Potatoes, Vegetables, Trees; White-washing, etc., quickly and effectively done with the new

"KANT-KLOG" SPRAYERS

Spraying time will soon be here. If any of your neighbors are likely to purchase sprayers this spring, send to us at once for booklets and we will tell you how to get your sprayer free.

ROCHESTER SPRAY PUMP CO.
12 East Ave., ROCHESTER, N. Y.



SAVE YOUR HANDS

No more stained, chapped or rough hands, while doing housework. ECONOMY RUBBER GLOVES are an absolute protection and when used leave the hands soft and white. Each pair guaranteed. Sent postpaid for 57 cents. When ordering send for size larger than your glove number. Order now. Do it today.

MRS. J. H. PRATT, Three Rivers, Mich.

the ground are like fish out of water, therefore the sooner they are in their natural element the lower the death rate.

If, after ordering your plants, your land is not ready to set them out at once, prepare a small piece of moist, not wet, land, and trench them in closely together.

Plow or spade over the land, level it with an iron rake, then lay down a long board six inches wide, using the board as a line. Then with a spade or shovel cut a slanting trench six inches deep; in this lay the plants, after wetting the roots, one inch apart or more, having the crowns even with the bottom of the board. The trench being cut on a slant, the plants will lay where you put them till you have placed fifty or a hundred.

Then draw the earth about the roots and press it down firmly with your feet; now fill the trench even with the bottom of the board and again repeat the pressure, putting a little loose earth on the surface.

These trenches may be six inches apart, with three or four rows, then leave a space of eighteen inches for a path to work among them to keep the surface free from weeds.

They may remain in these rows six or eight weeks, or till your land is ready for them. Select a cloudy, moist day to transfer them to the land where they are to grow for fruit bearing.

When digging them from the trenches let all the dirt stick to the roots that will. If the trenches are very dry, soak with water before removing the plants.

You will find that they have thrown out many new white roots, and if well transplanted into the permanent bed, will grow without any check. Weston, Mass.

Doing a Week's Washing In 6 Minutes—Read the Proof

THIS woman is using a 1900 Gravity Washer. All she has to do is keep the washer going. A little push starts it one way—a little pull brings it back—the washer does the rest. The clothes stay still—the water rushes through and around them—and the dirt is taken out.

In six minutes your tubful of clothes is clean. This machine will wash anything—from lace curtains to carpets, and get them absolutely, spotlessly, speckleslessly clean.

There isn't anything about a 1900 Gravity Washer to wear out your clothes.

You can wash the finest linen, lawn and lace without breaking a thread.

"Tub rips" and "wash tears" are unknown.

Your clothes last twice as long.

You save time—labor—and money.

You wash quicker—easier—more economically.

Prove all this at my expense and risk.

I let you use a 1900 Gravity Washer a full month FREE.

Send for my New Washer Book.

Read particulars of my offer.

Say you are willing to test a 1900 Gravity Washer.

I will send one to any responsible party, freight prepaid.

I can ship promptly at any time—so you get your washer at once.

Take it home and use it a month. Do all your washings with it.

And, if you don't find the machine all I claim—if it doesn't save you time and work—if it doesn't wash your clothes cleaner and better—don't keep it.

I agree to accept your decision without any back talk—and I will.

If you want to keep the washer—as you surely will when you see how much time, and work, and money it will save you—you can take plenty of time to pay for it.

Pay so much a week—or so much a month—as suits you best.

Pay for the washer as it saves for you.

I make you this offer because I want you to find out for yourself what a 1900 Gravity Washer will do.

I am willing to trust you, because you can probably get trusted at home. And, if your credit is good in your own town, it is just as good with me.

It takes a big factory—the largest washer factory in the world—to keep up with my orders.

So far as I know, my factory is the only one ever devoted exclusively to making washers.

Over half a million of my washers are in use.

Over half a million pleased women can tell you what my washers will do.

But you don't have to take even their say-so. You can test a 1900 Gravity Washer yourself. Then you will know positively.

Write for my book today. It is FREE.

Your name and address on a post card mailed to me at once, gets you my book by return mail.

You are welcome to the book whether you want to buy a washer now or not.

It is a big illustrated book, printed on heavy enameled paper, and has pictures showing exactly how my Washers work.

You will be pleased with this book. It is the finest even I have ever put out. Write me at once.

Find out just how a 1900 Gravity Washer saves your time and strength—preserves your health—and protects your pocketbook.

Write now—Address—R. F. Bieber, Manager "1900" Washer Co., 510 Henry St., Binghamton, N. Y. Or, if you live in Canada, write to my Canadian Branch, 355 Yonge St., Toronto, Ontario.

One Further Suggestion

By A. Beck

I READ with much interest the article in the March number of The Strawberry entitled, "A Convenient Tool for Strawberry Folk," because being in need of some tool to use for the purpose of cutting the runners on my three-quarter-acre patch of plants, I too conceived the idea of utilizing an old worn-out hoe as described by Mr. Sabin; but I had the blacksmith attach a blade eighteen inches in length, using a portion of an old cross-cut saw for the purpose. With this tool I found I could sever every runner in four strokes to each hill, and do it nearly as rapidly as I can walk. When blade becomes dull I sharpened with a file, and find it both economical, and effective. Kelso, Washington.

WHO has suggestions of a helpful nature to make? We'd like to have a department in The Strawberry devoted to what we might call "Helpful Hints From Our Folks," and believe if all the readers of this magazine would send us in very brief form, the results of their experience and experiments with plants, with fruit, with fertilizers, with devising tools and other aids to berry growing, etc., it would make a department of high value to all. Send us along your suggestions; they may not appear to be particularly important to you, but may be of large value to the thousands who would utilize them. Next!

HERE is a warning from Farm Journal worth passing along: "About this time of year irresponsible parties go around attempting to sell so-called recipes for making fertilizers. If any of our readers are offered an opportunity to get in on the ground floor of the fertilizer business—to learn how to make fertilizers for $1 a ton—all by purchasing a $5 recipe for making fertilizers, we wish to offer this advice: Don't. We have seen several of these recipes, and have yet to see one that was not worthless."

THE best soil for strawberries is discussed by the Twentieth Century Farmer, which says: In the first place the strawberry is at least 99 per cent water and hence one of the requisites to a large yield must be retentive soil; after the question of fertility, etc., this must be taken into consideration. To grow the largest berries we believe sandy soils are the best, but to produce the most bushels we would suggest a deep, loamy soil, one that was rather retentive of moisture and yet had sufficient drainage as strawberry roots are very short and superficial. The soil must be one that requires constant shallow cultivation and by so doing keep-

ing the plant in the best working condition by supplying an abundance of moisture at the surface. If it is plants that one is after we should then use the sandy soil, as it is very essential and allows the roots to penetrate the soil deeper.

Delights of the Strawberry Patch

By Cora June Sheppard

From the Farmers Voice

WHO is there, with a little land at hand that would be without a few rows of strawberries? They give one a continuous feast for a month or more. And who would buy berries when they can raise their own and have them fresh from the vines, at every meal.

Soon after we were married in June, 1904, my husband placed strawberry plants in the space between our barn and the neighbor's. The next season, they were a joy indeed. We ate the fresh berries,

NICK HESS' PATCH AT FT. SMITH, ARK.

we canned them for winter, and we gave some away.

Early in the season '05 before patch No. 1 had yielded, patch No. 2, consisting of four rows in the garden, had been planted.

Walter L. Minch, the strawberry man of this section, has unbounded faith in the strawberry. He has several large patches and picks every day of the season.

He claims the plants call for a year's attention before fruition—and the man who enters the undertaking is pretty sure of success if he sticks to the duty at hand. An authority says it means getting right down in the dirt—and going into it with your hands. No man or woman addicted to the glove habit when at work need compete for the prize along this line.

Dirt is healthy and full of life-giving qualities. My husband for one, seems to love to get his hands dirty. In imagination I can now see his fingers sprawled out and working in the pliable earth, placing the plants with a magic touch that seems to make every one grow.

Patch No. 2 contained two rows of Bubachs for early berries and two of Stevens' Champions for a late variety. We picked the first May 20; by May 25 we were picking them by the box—and ere long by the crate. When once they had been tasted by neighbors and friends they wanted more.

They came to the patch and bought them as fast as we could pick them, paying from 7 to 10 cents per quart.

We ate them three times a day from May 25 to June 25.

I made a strawberry shortcake all but four or five of the days of that month.

We were still hungry for strawberries—and wish Luther Burbank would invent a berry to last all summer.

We have some particular friends with whom we share our abundance and sent each a quart of berries each day—to others we gave as the spirit moved.

Mrs. Sheppard is a regular reader of The Strawberry, and her enthusiasm and

FREE TRIAL
Cut shows the Genuine Edison Standard Phonograph.

Get Your Name In Quickly!

Thomas A Edison

You can have a splendid Edison Phonograph sent to you on trial, simply by sending your name. You need not send a cent until you have given it a thorough trial in your own home.

We Send A Genuine Edison PHONOGRAPH On Request No Cash Needed

Here is our wonderful offer; such an offer as you have never seen before, and may never see again. You send us your name and address, and we will send you a Genuine Edison Phonograph, with large Floral Horn and a dozen Genuine Gold-Moulded Edison Records. You may have two days to test it, and if not entirely satisfactory, return it at our expense. *Remember, no C. O. D.; no cash in advance.*

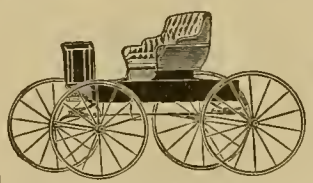
We can sell you a Genuine Edison Gem Phonograph outfit complete, including twelve Edison Gold-Moulded Records, for $14.20. No one could sell it for less, even for cash in advance, but you may pay us as little as $2.00 per month if you wish.

Write for free Guide to Latest Music, and have Phonograph sent at once.

MUSICAL ECHO CO., Edison Distributors, Dept. No. 74, 1215 Chestnut St., Philadelphia, Pa.

34 Years Selling Direct

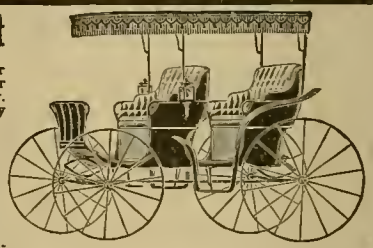
Our vehicles and harness have been sold direct from our factory to user for a third of a century. We ship for examination and approval and guarantee safe delivery. You are out nothing if not satisfied as to style, quality and price.



No. 756. Bike Wagon with Fine Wing Dash, Automobile Seat and ¾ in. Guaranteed Rubber Tires. Price complete, $58.50. As good as sells for $25.00 more

We are the Largest Manufacturers In the World

selling to the consumer exclusively. We make 200 styles of Vehicles, 65 styles of Harness. Send for large, free catalogue.



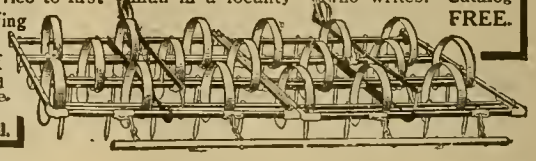
No. 313. Canopy Top Surrey with Automobile Style Seats. Price complete, $73.50. As good as sells for $25.00 more.

Elkhart Carriage & Harness Mfg. Co.
Elkhart, Indiana

Throw Old-Style Harrows on the Junk Pile!

Naylor 2-in-1 Harrow Does the Work Better in Half the Time

What's the use of going over your fields **twice** when **once over** with my Combination Spring and Spike Tooth Harrow will do the work and do it **better?** This **2-in-1 Harrow** makes a perfect seed-bed in half the time and with half the labor of man and team required with old-style harrows and drags. The **2-in-1 turns up the earth** and **pulverizes it AT THE SAME OPERATION.** The little picture at the bottom tells part of the story. My Catalogue tells more of it, and hundreds of farmers all over the country are telling the rest of the story. You ought to hear them praise it. **My Harrow saves so much time that it pays for itself in 7 days' use.** It's a light puller. It makes as fine a seed-bed as you ever saw. If you order one and it doesn't "make good," I'll refund every cent you paid me. **Special Confidential Price** to first man in a locality who writes. **Catalog FREE.**



Naylor's Flint-Coated Rubber Roofing
$1.45 and up per Square of 108 Sq. Feet.
3 different weights to select from. For all kinds of farm buildings. Steep or flat roofs. Guaranteed. Nails and cement with every roll. Samples free.

J. R. Naylor, NAYLOR MFG. CO.
4 Hillgrove Ave. La Grange, Ill.

fine spirit have communicated themselves to many others. Domestic economy of the highest type naturally associates itself with a love for out-of-doors, and thus do contentment, good health and a world-inclusive intelligence abide together

Insects in the Strawberry Field

And How to Deal With Them

By R. L. Adams

THE insects that attack the strawberry and how to deal with them are matters of vital importance to the strawberry grower. We present herewith the initial instalment of an article dealing with the subject prepared for The Strawberry by Prof. R. L. Adams of California. The numbers of this magazine containing the series should be preserved for future reference by our readers. Remember, that many of the insects mentioned appear only in particular sections of the country, and that many others attack the strawberry very rarely. But the writer has sought in his comprehensive article to inform our readers everywhere and thus prepare them to meet and cope with any emergency that may arise in their experience.

WHEN a plant sickens and droops the first step towards supplying a remedy is to find the cause of the trouble. If it is not from lack of food or water, it should be examined for fungous diseases. If these, apparently, are not present, hunt for evidences of insect work. Examine the leaves, roots and blossoms carefully, dissect the crown and large roots, and lastly, look in the soil in the immediate neighborhood for grubs, beetles and the like. It is the insects which will be considered here. For convenience the injurious insects are divided into five classes according to the part of the plant they infest: (a) root, (b) crown, (c) leaf, (d) bud, and (e) fruit.

It is impossible to list every insect which attacks the strawberry plant, for, as with nearly all cultivated plants, certain insects are especially injurious in one part of the country while others affect other sections. So a description of only the most injurious is given. A list covering all that enjoy a banquet on this plant, would be formidable and of little practical value, as many attack it only secondarily. The less important ones will yield to the same general treatment as the others and will seldom trouble. If a new species is found at work send specimens to your experiment station and they will give you the necessary information.

The first general class to be considered are those

Insects That Attack the Roots

1. The white grubs are the worst pests on the roots. There are several different kinds of grubs, but the work of the larvae (young) of the June-bug, May beetle or dor bug (*Lachnosterna fusca*) as it is variously called, is typical and will serve as a general example. They exist in nearly all pasture and grass lands. The glossy white eggs, one-eighth inch long, are laid early in June around the roots of some herbaceous plant, almost never in plowed land. These hatch in about twelve days and the young grubs immediately begin to feed on the young rootlets.

For two, possibly three, seasons they live under ground before reaching maturity, consuming an immense number of the tender roots, so many indeed, that they often kill the plants. By the end of the second season they make a small, oval cell, three to ten inches below the surface of the ground and change from a grub to a mature beetle, a process called pupation. The time required is about three weeks, being completed by September. The beetles, however, do not emerge until the following spring, when they lay the eggs for a succeeding generation.

The beetles do great damage to fruit and ornamental trees, feeding in large numbers at night.

Remedies—As the strawberries are very susceptible to their attacks it is a poor plan to set out a bed on land that has been in sod previously for less than two years. The eggs are not laid in plowed or cultivated land and if some immune crop follows the sod and then the strawberries, no fear of grubs need be felt. In badly infested land, late deep fall plowing, or the pasturing of swine and chickens will help. Rotation of crops is the surest

Why carry loads of water to spray? Do the work more effectually, quickly and easily by applying the insect poison direct with the

ACME POWDER GUN

It puts the powder right to the spot—under and all about the leaves and stems. Bugs, worms and insects can't escape; and just a puff to the plant does the business. If your dealer hasn't it, send $1.00 and his name—we will ship Powder Gun, *charges paid*. Handles any kind of powder insecticide. Ask for little book for particulars, sent free.

POTATO IMPLEMENT COMPANY,
Box 631 Traverse City, Michigan.

DEMING Get something reliable when you buy.

Barrel, Bucket, Knapsack, Hand and Power Outfits. No greater variety nor better types than Deming

SPRAYERS

For trees, shrubs and vines. Model appliances for poultrymen for whitewashing, disinfecting, etc. Write for catalogue with full particulars.

The Deming Co.,
415 Depot Street, Salem, Ohio.
General Agencies in Principal Cities
Henion & Hubbell., Western Agents, Chicago.

HURST POTATO & ORCHARD SPRAYER

ON FREE TRIAL.

No money in advance—Pay when convenient. Sprays Everything—Trees; Potatoes, Truck, etc. 4 rows at a time—20 acres a day. Doubles Your Crop—extra yield one acre will pay it first season. A boy can operate it. GUARANTEED FIVE YEARS. Wholesale Price (where no agent). AGENTS WANTED. After trial, if you keep it—pay when you can. Special FREE OFFER for first one in each locality. "SPRAYING GUIDE" and full information FREE. Write Today. We Pay Freight.

H. L. HURST MFG CO., 75 North St., Canton, O.

Hay Forks That Help

There are Hay Forks that *help*, and Hay Forks that *hinder* you in your work.
You don't forget the handy fork that *helps*—you single it out from the others *every time* you go for a fork.

* * *

To be sure of getting a real good Hay Fork, ask for the True Temper kind.
They must prove true in quality, construction, "hang," and temper, under severe tests at the factories before they are permitted to receive the True Temper label.
And they are manufactured from selected materials, by the oldest and largest manufacturers in the world
Therefore, *you are sure to get the best Forks.*

Best Tools You Have Ever Bought — **TRUE TEMPER** — **Same Price You Have Always Paid**

Not only Hay Forks, but all kinds of Forks, Hoes, Rakes, Weeders, Beet Tools, Hooks, Potato Tools—every desirable pattern of farm and garden hand-tools. Scientific and intensive methods of land culture are now pursued by intelligent farmers nearly everywhere. This calls for *special-purpose* tools which will help you to do your work with a saving of time and labor, and produce best results. In the production of crops their use means *less expense* and *more profit for you.*
Ask for True Temper when you want such tools.
Our FREE BOOK, "Tools and Their Uses," will interest you. It is fully illustrated, and tells HOW to save time and labor, by using special-purpose tools. Write for it today
AMERICAN FORK & HOE CO.,
645 Am. Trust Bldg.
Cleveland, O.

"Worth All the Gas Lights Ever Made"

"It is difficult to find words to express our pleasure and satisfaction with The Angle Lamp," writes Mr. P. B. Leavanworth, Grand Rapids, Mich. "It is certainly the greatest illuminator ever made. Our neighbors thought we must have a gas plant but we consider our lamp is worth all the gas or gasoline lights ever made. Such a clear, steady, brilliant and beautiful light and so easy to care for!"

The Angle Lamp is the *new* method of burning common Kerosene oil, and is as different from the ordinary lamps in results as it is in appearance. It makes common kerosene the best, the cheapest and most satisfactory of all lighting methods. Safer and more reliable than gasoline or acetylene, yet as convenient to operate as gas or electricity.

THE ANGLE LAMP

is lighted and extinguished like gas. May be turned high or low without odor. No smoke, no danger. Filled while lighted and without moving. Requires filling but once or twice a week. It floods a room with its beautiful, soft, mellow light that has no equal. WRITE FOR OUR CATALOG "54" and our proposition for a

30 DAYS FREE TRIAL

Write for our catalog "54" listing 32 varieties of The Angle Lamp from $1.80 up, now—before you turn this leaf—for it gives you the benefit of our ten years' experience with *all* lighting methods.

THE ANGLE MFG. CO., 70-80 Murray St., N. Y.

EVERY READER OF THE STRAWBERRY SHOULD HAVE A SETTING OF GROFF'S HYBRID GLADIOLI BULBS—THE MOST BEAUTIFUL FLOWERS IN THE WORLD, AND THEY BLOOM FROM JULY TO OCTOBER. READ OFFER ON OUTSIDE COVER PAGE. :: ::

method, however. Old beds should be carefully cleaned out.

2. The strawberry root-borer (*Typophorus canellus*) is troublesome in certain parts of the central states.

The larvae causing the damage hatch from eggs laid by stout, polished, brownish beetles, one-eighth inch long, and marked with four black spots, which appear in great numbers about the first of May and feed on the foliage.

The grubs are small, white, with reddish brown heads, and one-eighth inch long when mature. They feed on the roots until the last of June, when they pupate in a small oval cell made in the ground by twining round and round.

The beetles soon appear and lay the eggs for a second brood, which reaches maturity by fall, passing the winter as adults.

Remedies—Spray the plants before they blossom with Paris green or arsenate of lead. After the fruit is set use hellebore. Never set a new bed on infested land or near enough to an old one so that infection can follow. This is a precaution which will apply in dealing with most insects.

3. Wire-worms, the larvae of click beetles, will attack the roots, especially in beds set on sod land. If they become numerous the land would better be rotated with immune crops unless it is a small plot, when resort may be had to poisoned baits such as clover cut and sprayed with Paris green (one-fourth pound to a barrel of water) or bran mash poisoned with the Paris green. No extended description is necessary, for wire-worms are familiar to all.

(Continued in June Number)

Why He is Enthusiastic

By M. M. Luzader

THE STRAWBERRY is all right so far, and if any one can read it a few months and not catch the fever of an enthusiastic berry culture he had better buy some good clothes and a package of cigarettes and loaf the rest of his days. It would be a shame for a good honest, intelligent, industrious strawberry plant to fall into such a man's hands.

I began growing strawberries three years ago with one-eighth of an acre, and by following the directions in "Big Crops of Strawberries" I made the patch yield $75.

Last year the hard freeze the 10th of May cut my crop about half, but from the half-acre of fruiting bed I sold $135 besides what we used in the family and gave away. Parsons' Beauty and Haverland are my best money makers.

My plants are looking fine this spring, and if old Jack Frost tends strictly to his own bussiness I will have a heavy crop of big berries.

Harrisville, W. Va.

25,000 TOMATO PLANTS GIVEN AWAY

READ BELOW

Choicest and earliest variety known

Growing Tomatoes for Quality, Quantity and Earliness

IS the name of the best booklet ever issued on the subject of tomato culture. It contains 30 pages and illustrations fully describing the Potter method of raising tomatoes. By this method you can have bigger and better fruit and weeks earlier than otherwise. It teaches the secret and science of tomato culture; forcing the fruit by systematic cultivation and pruning. This book is invaluable to every gardener, whether he grows one dozen or one thousand vines. The subjects covered are: History of the Tomato; Its Nature and Habit; Tomato Culture in General; The Potter Method; Plants and Planting; Home Grown Plants; Preparing the Ground; Setting the Plants; Cultivation; Pruning and Staking the Vines; Picking the Fruit; Ripe Tomatoes at Christmas; 40 Tomato Recipes; Best Tomato Seeds. The information is condensed and to the point—just what every grower wants.

The cut herewith shows one of a large number of vines in my garden last season. Notice that each stalk is loaded with large, perfect fruit from top to bottom. This is the result of my method. It is easy to raise this kind of fruit when you know how. Just send for my book—price 50 cents, money order or coin. Your money back if not satisfactory.

FREE PLANTS To everyone ordering my booklet before June 10, I will send free one dozen plants, the kind I raise, that will grow and produce fine fruit and it will be better than any you have ever raised before if you will follow my directions; but please remember, no free plants after June 10; booklet only after that date at the above price.

T. F. POTTER, Tomato Grower, Dept. H, Downers Grove, Ill.

Planet Jr

the tool for good work all the time

There is one brand that always returns full value for your money. Every Planet Jr. is practical—guaranteed to do the work with least effort, and most benefit to crops. All cultivating parts are of high-carbon steel; the workmanship is highest-grade; tests and inspection thorough. Result—Planet Jrs. do the work of three to six men and keep on doing it for years.

No. 4 Planet Jr. saves time, labor, seed and money. It combines every useful garden tool in one strong, light, easy-running, simply adjusted implement. Changed in a few seconds to an **Adjustable Hill-dropping Seeder, Continuous Drill Seeder, Single-Wheel Hoe, Furrower, Cultivator, Weeder, or Wheel Garden Plow**—each tool the finest of its kind. Pays for itself quickly even in small gardens.

No. 12 Double-wheel Hoe hoes two or three acres of onions or similar crops in one day, better and faster than three to six men with hand hoes. Wheels adjustable from 4 to 11 inches apart, and the hoe works equally well astride or between rows. Also a thorough weeder and a neat furrower.

Write for our **New 1907 Catalogue** showing the complete Planet Jr. line—Seeders, Wheel Hoes, Horse Hoes, One- and Two-Horse Riding-Cultivators, Harrows, Orchard- and Beet-Cultivators—45 kinds in all—with photographic views of practical, successful gardening. There is a Planet Jr. for every gardener's need.

S. L. Allen & Co., Box 1106D Philadelphia, Pa.

Serving and Preserving the Strawberry

EXQUISITE in flavor, appealing to a larger number of tastes than any other fruit, the apple alone excepted, the strawberry is not only universal in its habitat, but is susceptable to a wider range of treatment and more varied and delicious forms of preparation that delight the epicure than any other. It is the one fruit with which those who like them at all never become satiated, no matter how often served. Three times a day and "between meals" is the rule with strawberries wherever they are grown to perfection, and good health waits upon him who enjoys to the full the opportunities presented by the strawberry season. Some of the many ways in which the strawberry may be made a source of gastronomic pleasure by the skillful housewife are given here, as well as the latest and best receipts for preserving the fruit so that the "strawberry season" may be extended through the winter months; and we trust that members of The Strawberry family may make the best possible use of them.

The photo-engraving at the head of this page suggests an ideal way of serving the strawberry when they may be had fresh from the patch. It is a plate of Pride of Michigan, served with stems. Make a mold of powdered sugar in a wine glass and turn it out on a small individual butter dish. Set this in the center of a large plate and surround it with just such berries as these, and you will have one of the most delicate and attractive dishes of strawberries ever placed on the table, as well as one of the most delicious.

Strawberry Sago Pudding

Select fine ripe strawberries, dip them in a little dissolved gelatine and arrange them around the sides of a glass dish which has been chilled on ice. Make a syrup with a cup of water and two-thirds of a cup of granulated sugar, add one quart of sound ripe berries and let them simmer until soft. Flavor with the juice of half a lemon. Stir into the hot berries three tablespoons of sago and let cook until it is done. Remove from the fire, and fold in gradually the stiffly whipped whites of two eggs. Then cool, and pour gently into the berry-lined dish. Chill on ice and serve with sweetened, whipped cream.

Sun-Cooked Strawberries

Strawberries, sun cooked, are the best, says Farm Journal. Select perfect ones not overripe. To a pound of fruit allow three-quarters of a pound of granulated sugar. Do not try to do more than six or seven pounds at a time. Put the fruit with the sugar in alternate layers in the preserving kettle; stand the kettle on the back of the stove till there is sufficient juice to prevent the fruit from sticking, and then heat it slowly till it boils for about fifteen minutes; remove the scum. Do not stir as this breaks the fruit. Pour into shallow plates to the depth of about an inch, and put the plates in the sun, placing some higher objects near them to support a piece of mosquito netting, which will keep flies and bees away. As soon as the sun is low, take the fruit indoors and put it out again next day. Three days is usually long enough to make the juice jellylike. It is well to put the fruit all together in one crock before putting it into jars, so as to have an even amount of juice in all. If the weather turns rainy, it is better to finish cooking the fruit on the stove.

Strawberry Bread Pudding

Cream together two tablespoons of butter and one and one-half cups of granulated sugar; add the beaten yolks of four eggs and two cups of breadcrumbs soaked in one quart of milk. Turn into a round buttered baking dish and bake in a hot oven. As soon as the pudding is firm in the center, spread over it a thick layer of mashed and sweetened strawberries, and on top of these spread a meringue made with the stiffly whipped whites of two eggs and four tablespoons of powdered sugar. Delicious either hot or cold.

Mother's Strawberry Shortcake

Make the cake with one quart of flour sifted with a teaspoon of salt and three teaspoons of baking powder; rub in well two rounded tablespoons of butter, and then mix smooth with enough sweet milk to make a soft dough. Roll out an inch thick and bake in two layers in a hot oven. When done, tear quickly apart and spread over each piece soft butter. Put the layers

together with slightly crushed and sweetened berries and plenty of dry whipped cream. Heap whipped sweetened cream over the top and serve as quickly as possible after taking from the oven.

Strawberries in Jelly

Make a pink and white jelly after the directions on the gelatine package. Put a shallow layer of the pink in a plain wetted mould and set on ice to harden, keeping the rest of the jelly in a place where it will not harden although it is better to get cool. Over the pink layer place fine, ripe strawberries close together and sprinkle with powdered sugar and a little chopped nut meats, turn carefully over the berries a layer of the clear jelly, when this is set put in another layer of the berries and cover with more of the pink jelly. Proceed in this way until the mould is full, having the last layer of jelly. Set in a cold place until firm. Turn out carefully and serve with sweetened whipped cream.

Canned Strawberries

This is my recipe for the most delicious canned strawberries, and I never have had one can spoil, writes Mrs. K. T. P. in Farm, Stock and Home. When I have the berries picked over, I wash them, and let the water run off; then I take a crock or graniteware vessel that will hold the amount of berries I want to can, and put in a layer of berries and a layer of sugar alternately, until the vessel is full, or the berries used up, and sugar on top. If sealed jars are used it is not necessary to use half and half—one cup sugar and two of berries make good preserves. Let the berries stand in this way for at least three hours, or over night. Drain off the syrup into some good cooking vessel, put over the fire and let it come to boiling point, then put in the berries and cook slowly for ten or fifteen minutes. If half sugar is used the berries will keep in open crocks. If not they must be carefully sealed in jars. I have put up strawberries in different ways, and always had good success. Water should not be put in the pan with strawberries when cooking them, there are other kinds of fruit spoiled by mixing with water, which would be very delicious cooked in their own juice only.

Strawberry Layer Cake

For strawberry layer cake cream a liberal third of a cupful of butter, a cupful and a half of sugar, using with the white a few spoonfuls of pink sugar. Heat the bowl first before creaming the butter and sugar. Add half a cupful of strained strawberry juice to the sugar and butter, and then two cupfuls of the best pastry flour, with which a quarter teaspoonful of soda has been sifted two or three times. The acid juice will render cream tartar unnecessary. Fold in the whites of five eggs, stiffly whipped. Bake in layer cake tins and when cool spread each layer except one with a soft icing made by boiling a cupful of sugar with three tablespoonfuls of strawberry juice, and two of water. When it threads pour it over the whipped white of an egg and beat it a little before putting on the cake.

Strawberry Wine

Take well ripened strawberries and crush them finely and let them stand until fermented sufficiently so that the solid substance floats on the surface. Then press the juice out. To each gallon of juice add seven pounds of granulated sugar and one-half gallon of water (or in this proportion). Stir until sugar is thoroughly dissolved, and place in a clean keg leaving the bung hole open until all the refuse matter has worked off. About three days after fermentation ceases, put in a wooden plug, with a small hole through it. Seal tightly with beeswax and rosin. Through this small hole run a rubber tube and seal it in, placing the outside end into a quart jar of water. It will be necessary to keep the keg full so that the refuse matter can work off and out of the bunghole. For this purpose sweetened water may be used. When fermentation ceases, close the bunghole tightly and let the wine remain without disturbance for about four months, at which time it may be removed from the keg, using a rubber syphon, so that the dregs will be left in the keg. When all the cleared wine is removed the keg should be scalded out, then thoroughly rinsed with cold water, when the wine may be poured back into the keg and closed up tightly and permitted to remain until one year old.

Strawberry Pie

A good strawberry pie is always welcome. It can be prepared the same way as huckleberry and raspberry pies, by simply lining a pieplate with pastry, filling it with sweetened berries and covering them well with an upper crust. Another way is as follows: line the plate with delicate pastry, fill with bread crumbs and bake until slightly brown. Then turn out the crumbs and fill with sweetened berries. Cover them with crisscross strips of pastry. Place the pie in a very hot oven for a few minutes, or until the strips are well browned. Serve cold with a little whipped cream.

Strawberry Float

Scald one quart of milk and pour it over the yolks of four and the whites of two eggs which have been beaten with one-half of a cupful of sugar. Pour into a double boiler and stir over the fire until the custard thickens; add a pinch of salt and when partly cooled flavor with vanilla. In a glass dish put a layer of hulled and washed berries, pour over them a portion of the custard, then add another layer and the remainder of the custard. Whip the whites of two eggs with two tablespoonfuls of powdered sugar until stiff and glossy; add a few drops of vanilla and heap over the fruit. Dot the top with a few berries and serve.

Strawberry Macedoine

Cut off the top of a large pineapple and trim it at the bottom so it will stand firm; scoop out the pulp with a strong spoon and separate it from the hard core, which should be rejected; pare several oranges, divide into sections and cut into suitable pieces, stem a few strawberries, pit a few cherries, slice some peaches or apricots and add any other fruits in market; mix the pineapple pulp and other fruits, add the juice of a lemon and powdered sugar to sweeten; place on ice for an hour or longer, and when ready to serve fill into the chilled shell of the pineapple and garnish it at the base with the crown leaves.

Strawberry Pickle

Seven pounds strawberries, one and one-half pints cider vinegar, three and one-half pounds brown sugar, one-half ounce cloves, one-half ounce cinnamon. Place the strawberries and spices in alternate layers in a deep dish; boil the sugar and vinegar three minutes and pour over the fruit. Next day boil all together one-half hour and seal.

Strawberry Ice-cream

Wash, stem and mash a quart of berries; scald a pint of cream with nine ounces of sugar; stir till the sugar is dissolved; cool, and add another pint of uncooked cream. Put into the freezer and slowly turn till icy cold, then rapidly turn until it is nearly frozen. Remove the top of the cooler and add the berries. Re-cover and turn until it is frozen a second time, then remove the dasher, scrape down the sides, draw off the water and repack. Put a cork into the hole in the lid, and cover it tightly with a piece of brown paper. Cover the freezer with old carpet and let it stand an hour to ripen. This rule will answer for all kinds of fruit, but sweeter fruits require less sugar and are improved by the addition of the juice of a lemon.

Strawberry and Lemon Ice Delicious

To one quart of strawberries add a pint of water and a pound of sugar. Let it boil twenty minutes. Then add the juice and rind of two lemons. Strain through a course cheesecloth strainer or sieve that is fine enough to exclude the seeds. Freeze it, using about six or seven cupfuls of salt to a gallon freezing can. Sometimes more water is added to the berries, but the ice is not then so rich.

Strawberry Layer Cake

One-half cup butter, one cup sugar, three eggs, two cups flour, one-half cup milk, one measure baking powder, six quarts strawberries. Beat the yolks of the eggs well, add the sugar and butter, beat in a part of the flour; mix in the

STEAM CANNING BOILER For small Canning Factories and Home Use. Price $10. Can your own corn, peas, pumpkin, fruit, fish, corned beef. Agents and Dealers Wanted. NORTHWESTERN STEEL & IRON WORKS, Box B. F. Eau Claire, Wis.

milk, then add the remaining flour with the baking powder sifted in it, and last the white of the eggs, beaten stiff. Bake in two layers. Spread each layer of cake with icing made of one cup powdered sugar and the white of one egg. Put the white of an egg in a bowl and add the sugar gradually beating with a spoon. Do not beat the egg till you begin to add the sugar. Just before serving sweeten and partly crush one quart berries, put them on one cake and place the other layer on top.

Strawberry Salad

Wash and stem one quart of strawberries, sugar with powdered sugar and put in glass bowl. Pour over it the strained juice of two oranges and one-half cup claret. Let it stand on ice until ready to serve.

Strawberry Shortcake

One large spoonful butter and lard mixed, three gills flour, one-eight teaspoon salt, one-half teaspoon baking powder, one-half box strawberries, one cup granulated sugar, one-half cup powdered sugar, milk. Sift baking powder and salt with flour; with the hands work butter and lard into flour and use milk enough, handling as little as possible, to make a soft dough; divide dough into two parts and roll each into a thin cake; butter the top of one cake and place the other on it, then put in a quick oven and bake ten minutes. Tear apart and butter well the inside of each part. Crush the berries during the baking, sweeten with granulated sugar, put between the cakes and sprinkle powdered sugar on top. It is fine.

Strawberry Meriogue

Crush two teacupfuls of strawberries with one cupful of powdered sugar, and press through a fine sieve to remove the seeds, beat the whites of four eggs to a stiff froth, adding gradually one small cupful of powdered sugar, and then by degrees add the strawberry juice; continue beating until it will stand in peaks. Make a soft custard with the yolks of the eggs, four tablespoonfuls of powdered sugar and one and one-half cupfuls of sweet milk; cook in a double boiler until as thick as cream, pour the custard into a glass dish and slip the meringue upon it.

Strawberry Sauce

One-half cup butter beaten to a cream with two cups powdered sugar. Mash well one pint strawberries, beat into the sugar, and butter and set on ice to harden. Good with any plain pudding.

Strawberry Shortcake

One pint flour, one and a half teaspoons baking powder, one-third cup butter, one cup sweet milk. Mix ingredients and divide into three equal parts; roll out and bake in tin. Spread each layer with melted butter and place them one on top of the other. Bake twenty minutes; when done separate them and return to the oven five minutes. Have one quart strawberries mashed and sweetened, and spread between the layers, with a generous supply poured over the top.

THE ECONOMY JAR

THE ONLY JAR THAT SEALS BY SUCTION All other jars only fasten, clamp, snap or screw, and are held closed only by a mechanical device, which loosens as the rubber ring decays or gets old. The Economy is sealed air-tight by suction from within, and stays sealed forever. Other jars are imitating the Economy's outside appearance and claiming to possess its sealing qualities, but none of them are sealed fast by suction as is the Economy. The Economy is the only jar that has ***NO RUBBER RING.*** All others use a rubber ring, which in time leaks air and taints and spoils the contents. The Economy is the only jar that will keep forever vegetables, meats, game, fish and unsweetened fruits. Put up your fruits and vegetables with their fresh, natural flavor. Sugar is not needed. Write and learn about this wonderful glass jar, which saves sugar and drudgery and makes easy the home canning of meats, vegetables and all other foodstuffs. No other jar can do this. Nothing can spoil in the self-sealed Economy Jar.

WIDE MOUTH
Has no rubber ring
Stays sealed forever
No mould
Is held airtight by suction
Seals itself
Easy, Quick and Simple
A child can seal and open it

FREE RECIPE BOOKLET

telling all about the Jar, how to can all kinds of food products and giving dozens of new, tried recipes for home canning every day in the year, will be sent to you on request. Economy Jars are sold by dealers in the United States and Canada. If your grocer hasn't them, send his name to us and we will tell you how to get one dozen Economy Jars free

KERR GLASS MFG. CO.
265 Hoyt Street, Portland, Oregon

EASTERN OFFICE, DEPT. R
PHILADELPHIA, PA.

ONE inch of rain on one acre of ground means a hundred tons of water on that area. Rainfall is a condition which has much to do with our health. A wet district with a good deal of subsoil water, making houses damp, is a locality in which rheumatism and consumption are likely to prevail. Over England and Wales the average yearly rainfall is about thirty-four inches; in Scotland, it reaches forty-six; and in Ireland about thirty-eight inches. Possibly the wettest parts of Britain are in Cumberland, where the rainfall may attain 150 inches per year.—Tit-Bits.

White Grubs Again

By S. H. Warren

AS I am short of land that is free from these pests I am trying an experiment, although expensive, for I think it will pay in the end. This piece of land which I wish to set with strawberry plants this spring had not been plowed for twelve years. I turned the sod September, 1905, and in 1906 it grew a heavy crop of oats; but when I plowed the oat-stubble last September in one-third of an acre I picked up 2,500 grubs. I followed the plowman and picked them up before the next furrow was turned. I then harrowed the land and picked them up again. I then cross-plowed and harrowed and picked up the worms as before.

But as I do not feel sure I have got them all yet I shall plow this land again this spring to find what may be left, then,

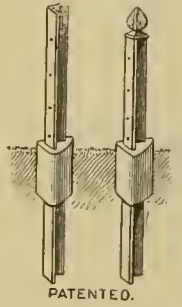
BOYS **BOYS**

This Rifle Free

I want a good boy in every community to have one of these splendid rifles absolutely free, prepaid—just give a little time to introduce "The Fruit-Grower," the handsomest farm paper in America.

This rifle is not a toy, but is made for business; finely rifled steel barrel, true sights, breechloader, rim fire, safety cock—in short, it is a perfect gun, and will be highly prized by every boy who secures one. Write today and learn how to get one of these rifles absolutely free.

Editor Fruit-Grower, Box R8, St. Joseph, Missouri



PATENTED.

THEY LAST FOREVER
STANDARD STEEL FENCE POSTS
Are to be driven one-third cheaper than wood posts
Posts made for all purposes
Farm, field, lawn, clothes, hitching, street-sign and grape posts.
Plain, barbed and woven wire of every description can be used with these posts.
250,000 Sold Last Year.
500,000 for sale this year. 30 miles of 58 inch, heavy woven wire fence erected on Standard Steel Posts on one estate.
Write for circular price list, and reference to **J. H. DOWNS, 299 Broadway, New York City**

Detroit Fruit, Poultry, Dairy and Farm Gardens
Pay Handsome Profits
We have them fitted up ready for operation and ranging in size, location and price
TO SUIT CUSTOMERS
For particulars write to
BOLTON REALTY CO., Detroit, Mich.

MAKE MONEY CANNING FRUIT
for others. They'll pay high cash prices. Send for free, money-making catalog. Tells all about costs and profits made with our canning outfit. Send now. Begin to reap profits this season.
MODERN CANNER COMPANY,
Dept. M, Bridgeport, Alabama.

VIRGINIA FARMS, $500 including new 3-room cottage and 25 acres for poultry, fruit and vegetables. Oakdale tract, Waverly, Va. Midway Norfolk and Richmond. Finest climate, water and markets. F. H. La Baume, A. & I. Agt. N. & W. Ry., Box SB, Roanoke, Va.

if I find many, I shall have the land shoveled over one foot deep and each shovelful spread back on the surface so all the grubs can be picked up and given to the hens.

Perhaps you will say it won't pay. This extra labor will pulverize the soil and I shall feel sure there will not be many grubs left in it to aggravate me later by eating the plant roots.

Now the question with me is, How soon do the grubs come up in reach of the plow? Where we have been plowing the land April 9 we did not find any. The common angleworms were seen as plentifully as in summer. If we must use this land for strawberries when we take into consideration the destruction that these grubs make where they are plentiful it will pay to spend lots of time to get them out of it before setting the plants in it, for they can be worked out better before setting the plants than after.

Setting the plants on land where the grubs are plentiful not only means a great loss but a great aggravation and disappointment and a setback of a whole year.

Weston, Mass.

THERE are 60,000 acres devoted to grapes in New York. The Chautauqua region leads with 30,000 acres, mostly Concord. The Keuka region ranks second with 13,000 acres, growing Concord, Catawba and Delaware. The Hudson region third with 10,000 acres growing mostly fine table varieties. Successful grape growing began in the Chautauqua region with the introduction of Isabella and Catawba in 1825. In 1859 the Concord was introduced by Lincoln Fay and was so successfully grown that the industry rapidly increased. There are 25,000,000 vines in the nurseries of Chautauqua county.

IN this day of scarce help and high wages, there is no question in which the farmer is more concerned than in the labor problem. How to get the greatest results at the least cost from hired help is interestingly shown and actually demonstrated in figures, in a 48-page book, published by the American Fork & Hoe Co., Cleveland, Ohio. It will pay our readers to write for this book, which is free to those who mention this paper.

Souvenir Post Cards

Photo post cards from your photographs. Send **photo** of yourself, home, flower beds, favorite horses, or pet dogs. Accompany order with **photograph** and 75 cents; we do the rest, returning your photograph with 12 photo post cards reproduced from the photo, postage paid. Reference, The Strawberry.

MRS. J. H. PRATT, Three Rivers, Mich.

"GOLDEN GATE" STRAWBERRY

At the Mass. Horticultural Exhibition in 1906 it won $23 in prizes on 7 qts. Seven berries have filled a quart. It won the $10 prize for the best one quart of any new seedling introduced since 1902 in competition with the highly praised **Cardinal** and other varieties.

PAN-AMERICAN STRAWBERRY set in May will produce as much fruit the following August, September and October as any variety in the spring and will sell for 50 cents per quart by the crate. Send for circular.

S. H. WARREN, WESTON, MASS.

$5 to $25 a Week

Grow Flowers

Some florists make $3000 to $6000 a year. Mr. J. F. Rosenfield, of Nebraska, makes more from his flower lot than from all the rest of his large farm. I have earned as high as $35 in a single week with flowers in my yard and garden. In or near a city or large town, or even within twenty miles of a city, splendid money can be made growing flowers. Will you let me show you how? My plan of helping you sent free, but three two-cent stamps with the names and addresses of six flower lovers brings you four seed packets of my most profitable flowers.

Box 876. **MRS. A. FACKLER, LINGLESTOWN, PA.**

PAGE Poultry Fence

Strongest, best on the market. Fences poultry *in*, stock *out*, and lasts. Costs less erected than common netting, because it requires *no boards* at top or bottom and so *few posts*—one every 50 feet. You can't afford to buy poultry fence without investigating Page. Write for descriptions.

Page Woven Wire Fence Co.
Box 106, Adrian, Mich.

CLASSIFIED ADVERTISING DEPARTMENT

BELIEVING that you (reader) who have helped make possible the splendid advertising benefits offered by our circulation, should be permitted to share them with business houses of large capital, the publishers of The Strawberry have inaugurated a department for this purpose.

It is not always easy to find a purchaser, at the particular time you wish to sell something. However there are investment seekers everywhere and somewhere there is someone who is looking for exactly what you have for sale and vice versa. It is simply a case of finding the right man.

Your "right man" is among The Strawberry's 30,000 families. You can find him for 50 cents.

This is your opportunity.

Whatever you want to sell, you must advertise it. And you cannot advertise it in any other way so widely, at such small cost as in The Strawberry. Do you wish to dispose of a farm, house, wagon, horse, cow, boat, gun, plow or any other of the countless conveniences of daily life? Someone is waiting for a chance to buy it. 50 cents will bring you a purchaser.

On the other hand—

Do you want to buy a good horse, cow or dog, some particular kind of chickens, sheep, tree or fruit? Make your wants known. Someone has just what you are looking for.

Do you need help on your farm or in your business? Someone is looking for that job. Insert an ad. in this department and find him.

It's very easy. Simply write what you have to say in the fewest words possible, send it to us with three times as many cents as there are words, and we will place it attractively in its own particular class in this department.

As you can see, each thing being under its own particular heading, every ad. is displayed to equal advantage. Everybody is in "on the ground floor."

In sending in an advertisement for this department remember that—

The price is 3 cents per word each issue.

Numbers and initials count as words.

No illustrations or black-face type admitted under this classification.

No ad. accepted for less than 50 cents per insertion.

Cash must in all instances accompany order.

All copy must reach our office on or before 20th of month preceding date of issue.

Be careful to write your copy plainly.

The Strawberry is sent free to each advertiser while ad. is running.

AGENTS WANTED, CHANCES, ETC.

WE want one lady or gentleman to take orders and deliver for us, rapid seller, highest quality goods, sales in almost every house. Best of pay and no money required to carry on the work. We will send a proposition as soon as we hear from you, also sample pair of 6-inch shears for 28 cents—stamps or silver. Write at once. United Shear Co., Westboro, Mass. tf

BOOKS AND MAGAZINES

DO YOU WISH to secure copies of the first volume of The Strawberry? If you do we are now in position to supply them. A notice inserted in the January issue offering $2 for a volume has brought offers of several sets. Only one was needed to fill the order. We shall fill all requests in the order received. They cost us $2 a set. Please remit $2.25 to cover postage. The Kellogg Publishing Co., Three Rivers, Mich.

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

FARMS AND LANDS FOR SALE

FRUIT FARM FOR SALE—Forty-acre tract, 2½ miles from Northern Pacific station at Woodland, Wash., and one mile from landing of boat line running to Portland, Ore. Twenty acres under cultivation; between six and seven hundred fruit trees in bearing—one orchard fifteen years old, another seventeen years; one acre in grapes; three in strawberries; currants, gooseberries, three kinds of raspberries; four-room frame house; stable for ten head of stock; boat house, chicken house, tool shed. Horse, two cows, farm implements, and other things too numerous to mention—all for sale by owner, on good terms to purchaser. George W. Winters, Woodland, Wash.

STRAWBERRY FARMS and Country Homes in the Tidewater section of Virginia. Some beautiful waterfront properties. Wilcox and Goodenow, Norfolk, Virginia. 7

DOGS, PETS, ETC.

CHOICE Fox Terrier Puppies for sale. They are nicely marked and sharp as tacks. No better house or rat dog ever lived. If you want a standard bred Fox Terrier at $4 for females and $5 for males, write at once. I guarantee satisfaction. Arthur Dicken, Route 7, Bellevue, Ohio. 5

PLANTS AND ROOTS

RIDGEWAY'S STRAWBERRY PLANTS (Kellogg's Pedigreed strains) from mulched propagating beds. Shipped in May and June. Good true service. Several standard varieties. Small orders accepted. Ridgeway's Garden, Osakis, Douglas County, Minnesota. 5

POULTRY, EGGS, ETC.

A WINNER." My White Wyandotte Pullet, by Lambert, scored 96¾. Stock and eggs from Buston strain for sale. Karyl Wright, Conneaut, Ohio. 5

BANTAM EGGS. America's Best. Send 2 cent stamp for circular. A. A. Fenn, Box 20, Burlington, Wis. 5

DICKEN'S WHITE ROCKS have fine, shape, size and color. I have some choice matings for this season, if you want birds of quality. Book your order with Dicken for White Rock Eggs; none better at any price. Ten chicks guaranteed from each setting. 15 eggs, $2.00. Arthur Dicken, Route 7, Bellevue, Ohio. 5

15 ROSE COMB Brown Leghorn Eggs, 75 cents. Henry Tiedemann, Hammond, Ind. 6

FOWLS, $1.50; Eggs, $1.00—White Leghorns, Buff Rocks, fine large Barred Rocks, good color Buff Cochins. H. S. Arnold, Lawark, Ill. 6

FOR SALE, White Leghorn, White Rock and Pekin Duck eggs for hatching, Collie Pups, Homer Pigeons. If you want something elegant and reasonable write The Michaelis Poultry Farm, Marinette, Wis. 6

MATCHMARK" COCKERELS, score 90 to 93½. Barred Plymouth Rocks, also Wyandottes, Leghorns, Bronze Turkeys, Jersey Cows, Calves. Thirty years breeders. Eggs for hatching. Circular, prices; satisfaction guaranteed. F. M. Munger & Sons, DeKalb, Ill. 5

PEDIGREE White Plymouth Rocks. Bred to lay. Blue Ribbon winners. Circular free. Tussie, 3036 Clinton Ave., Minneapolis. 5

RHODE ISLAND REDS, Light Brahmas, White, Buff, Black and Barred Rocks, Buff, Silver, White and Golden Wyandottes, Brown, Buff and White Leghorns, Black Javas and Minorcas. Hardy, prolific, farm-bred, pure stock. For Birds, moderate prices, or "Eggs to Hatch" at 10 cents each, write Walter Sherman, Berry Patch, Newport, R. I.

ROSE COMB WHITE and Rose Comb Brown Leghorn Eggs, 15, $1.00; 30, $2.00. Jack Cook, Bluffton, Ind. 5

S. C. WHITE LEGHORNS, bred for heavy laying of large white eggs and standard requirements. Eggs—15, $2.00; 30, $2.75; 45, $5.00. C. E. Densmore, Springwater, N. Y. 5

SECTIONAL CRATES

TUFTS' SECTIONAL CRATE. Neat in appearance. Well ventilated. No division racks. No mashed fruit. Displays fruit to best advantage—investigate. Free catalogue. Manufactured by Elmer G. Tufts, Aurora, Ind. 5

WATCHES

85 CENTS mailed to us will get you by return mail the Best Dollar Watch made. Stem wind and stem set. Snd guaranteed for 1 year. A. Smith, Jeweler, 151 St. Joseph st., Three Rivers, Mich. tf

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

SPRING is here, and every strawberry grower in the land welcomes its coming with genuine joy. This is the season in which the work is done that in great part determines whether our venture in strawberries is to be a success or a failure. It is most gratifying to us that we are receiving at this time so many letters of cheer from members of our Correspondence School, letters that tell us they are entering upon the work of 1907 with a feeling of courage that makes for success, because they can depend upon The Strawberry to carry them over the rough places and furnish them the needed information and advice when a critical problem arises. We sincerely hope that our friends are to take advantage of this particular opportunity. They may be assured that every question they ask will be in the minds of many of their fellows and that the answer to their questions will be a solution of the problems that vex many another. In this way one who asks questions really is doing a very large co-operative work.

We wish to call the attention of our members to the necessity of sending us their names when writing. We do not like to have a member sign as "A Subscriber," for we wish to address the real person, and when his name does not appear, we feel as though we were sort of talking to an empty house—and you know that isn't a very inspiring experience. We have one letter from Franklin, Ky., in which the writer does not even sign as subscriber, and just now comes another letter from Enterprise, W. Va., in which one of our friends tells us a very interesting experience, but gives us no clue as to who he may be. Hereafter we shall not consider ourselves bound to answer any questions where the name of the one asking them is not attached. This is absolutely necessary, not because we would publish the questioner's name, but we feel as a matter of good faith we must know with whom we are talking. Let everybody bear this in mind and see that his or her name is attached to all letters that come to us.

Now that the strawberry season, at least in some of its aspects, is actually with us, let us each determine to do the very best we may to achieve success. And do not forget that The Strawberry wishes to know all about your experience, and if you have something nice in the way of a patch that you think will look well in a photograph, you should enter our Photographic Contest, and give your fellow members a chance to see what you have done and are doing. We wish that every member of the Correspondence School could send us a photograph of his strawberry field some time during the year 1907. How many members will do this?

F. L. C., Jefferson, Me. I am a new subscriber to The Strawberry, and a beginner in strawberry culture. I intend to set about 2,000 plants this spring in a young orchard, the soil being "rocky," as it is called. It has been in various crops for three years, and I propose to spread on some barnyard manure, plow it in and harrow thoroughly, then spread on some fertilizer, perhaps ashes, harrow again, roll, and set out the plants. What do you think of my method?

2. Is nitrate of soda a good strawberry fertilizer? Is Swift's special to be recommended? What do you advise as the best commercial fertilizer?

3. I have ordered 500 Warfield, 200 Excelsior, 200 Senator Dunlap and 200 Pride of Michigan. How shall I set them to get the best results?

It is a splendid plan to set strawberry plants in a young orchard. The plants soon come into bearing, which keeps the bank account on the right side. Strawberries may be grown in an orchard for several years, at least until the trees begin to shade the ground. The year the trees are set out a row of strawberry plants may be set in the row of trees as well as between rows. The plants may be allowed to produce two crops of berries, and then be turned under. After this you should grow but two or three rows of berries between the rows. Barnyard manure should be applied sparingly. If much of it is used, it will give the trees too much woody growth.

2. Nitrate of soda is most profitable when applied on the fruiting bed, as has been described in The Strawberry. Swift's special brand is very good. It should be applied and thoroughly worked into the soil before the plants are set.

3. Warfield should be set in rows between Excelsior and Senator Dunlap. Pride of Michigan is an exceedingly strong pollenizer and may be set alone.

P. D., Muskegon, Mich. Could you please tell me the best way to protect berries from frost? We generally get our frosty nights in May.

Growers sometimes have saved their plants from frost by throwing the mulching over the plants. This should be done in the evening when weather is chilly and threatens frost. The best way to do it is to take a long rake handle or something of the kind and run it under the mulching, turning the straw over on the plants. Other growers find that a smudge is effective as a preventive of frost, and in the spring have piles of combustible materials in the fields ready to fire when frost approaches. The objection to this plan is the danger that the mulch may catch fire, which, of course, might seriously affect the plants.

E. P. G., St. Joseph, Mich. I have a question that I would like for you to tackle and tell just what you would do under similar circumstances. Last year I set quite a large bed of strawberries and about July 10 to 12 an army of rose bugs swarmed down on us and ate it almost entirely up. All the old timers here told me it was impossible to get the best of them in any way, as they had in the past had whole vineyards ruined by them. Now before they come again I appeal to you for some relief if you can suggest any. All other wants in your line I get answered from month to month in The Strawberry. Think it would now be as hard to do without that little magazine as to do without our telephone. Continued success and best wishes for your enterprise.

The rose chaffer is a leaf-eating insect, but is such a light feeder that it requires a very poisonous solution to kill it. We have found that spraying with arsenate of lead is the best thing we ever have tried. Take five pounds Swift's arsenate of lead, and pour over this enough hot water to thoroughly dissolve it, and when thoroughly dissolved add enough water to make fifty gallons. If weather conditions are favorable, one spraying with this solution will destroy the insects.

E. E. S., Tylerville, Conn. How many quarts of strawberries would you expect from an acre of good strawberry land, in hills, in single-hedge rows, and in wide matted rows? Hills eighteen inches apart each way with every fifth row left out for walks. Single-hedge rows thirty inches apart. Matted rows four feet apart; runners allowed to root as they will, forming a solid matted bed three feet wide.

It is difficult to make an estimate of the number of quarts one acre of plants should produce, as this depends upon so many factors—the vigor of the plants, conditions of the weather during blooming

and fruiting season and mechanical conditions of the soil. One acre of thrifty plants, grown in hills as you describe in your letter, should produce at least 7,000 or 8,000 quarts of first-class berries. A single-hedge-row acre should produce at least 6,000 quarts of good salable berries. The matted row system should produce as many or more quarts than either the single hedge or hills, but of course, the berries would not be fancy. You understand this is only an estimate. We have known acres to produce many more quarts than we have estimated.

⚜ ⚜

E. W. C. Pittsfield, Me. After the fruiting season of '06 I plowed my berry patch under. Then gave a good harrowing, but did not apply stable manure as I could not get any suitable. This land has been set to strawberries several years by other parties, but has been allowed to fruit only one year before plowing. Commercial fertilizer has been used. The soil is red and almost sandy and will grow almost anything. I set forty-five hundred plants last spring, but had to use phosphate. My varieties of plants are Haverland, Bubach, Crescent, and Brandywine. I set them in separate pieces, as I thought they might mix. Is that right? I mulched them with swale hay in November. They did not throw out runners as they would had the ground received a good coat of stable manure. Now I want to know: 1st. How would you set the above named varieties? 2nd. Would it pay to apply nitrate of soda on my fruiting bed this spring?

2. What had I better do with the piece of ground I plowed after the fruiting season? The Strawberry has been a great help to me, and expect it will be of more help in the future. I am a beginner.

We doubt if the Haverland, Bubach and Crescent will give you enough berries to pay for the setting as they are pistillates and should be set with bisexuals of their own season. Haverland should be set with Parson's Beauty, Bubach with Clyde and Crescent with Splendid. We would not spend any money for nitrate of soda to be used on your plants.

2. After plowing the piece of ground which has been growing strawberries, we would sow cow peas.

⚜ ⚜

J. A. C., Western Springs, Ill. A part of my one acre of strawberries will have fruited for the third time this summer, and I intend to reset it after the coming crop is harvested. Do you advise plowing it this summer and then raising some other crop like potatoes for next summer before again putting it into strawberries, or can I manure it thoroughly in July, plow it under, and then plant to strawberries next spring?

Where one is limited in area, and must use the same piece of soil over and over again, it is all right to plow under, fertilize and reset the next spring, as you suggest. Of course, where it is possible to do so, a system of rotation should always be followed. After plowing under the old strawberry bed, it should be sown to cowpeas or some other legume as soon as possible, and this plowed under late in the fall, when rye should be sown and allowed to grow as it may in the fall and winter months, carrying out manure and scattering it over this growing rye during the winter season. In the spring when this rye is plowed under it will be found that the soil will have been thoroughly renovated as well as fertilized, and in fine condition for the reception of plants.

⚜ ⚜

D. N., Ontonagon, Mich. Please give us information regarding nitrate of soda,—that is as to the place nearest us where we could purchase it. What is the price?

Write Swift and Co., Union Stock Yards, Chicago, for prices. A. L. Randall Co., 19-21 Randolph-St., Chicago, Ill., quote nitrate of soda at $64.00 per ton. W. R. Grace & Co., Box 86, New York City, quote the soda at about $3.00 per hundred pounds.

⚜ ⚜

J. A., Easton, Ind. The article in March Strawberry by Mr. Beatty is I think one of the best of the many good articles in The Strawberry. I would like to know how he would plant his bisexual berries—how many rows of each? I have never planted more than two and one-half acres and always plant eight or ten rows of each. They all appear to make perfect berries, but I keep ten or more hives of bees.

2 Do you not think that bees are an advantage to berries as they fly from bloom to bloom and help to distribute the pollen? I would like to have your opinion on the subject.

We would set three rows of each kind alternately. Some growers think this makes a little more work at picking time, but we never figure the extra work so long as the extra profit will justify it. In some seasons the results would be just the same

1 CENT IS ALL IT WILL COST YOU to write for our big **FREE BICYCLE** catalogue showing the most complete line of high-grade **BICYCLES, TIRES** and **SUNDRIES** at **PRICES BELOW** any other manufacturer or dealer in the world.

DO NOT BUY A BICYCLE from *anyone*, at *any price*, or on *any kind of terms*, until you have received our complete **Free Catalogues** illustrating and describing every kind of high-grade and low-grade bicycles, old patterns and latest models, and learn of our remarkable **LOW PRICES** and **wonderful new offers** made possible by selling from factory direct to rider with no middlemen's profits.

WE SHIP ON APPROVAL *without a cent deposit*, **Pay the Freight** and allow **10 Days Free Trial** and make other liberal terms which no other house in the world will do. You will learn everything and get much valuable information by simply writing us a postal.

We need a ***Rider Agent*** in every town and can offer an opportunity to make money to suitable young men who apply at once.

$8.50 PUNCTURE-PROOF TIRES ONLY $4.80 PER PAIR

Regular Price $8.50 per pair. ***To Introduce We Will Sell You a Sample Pair for Only*** **$4.80**

NAILS, TACKS OR GLASS WON'T LET OUT THE AIR

(CASH WITH ORDER $4.55)

NO MORE TROUBLE FROM PUNCTURES.

Result of 15 years experience in tire making. **No danger from THORNS, CACTUS, PINS, NAILS, TACKS or GLASS.** Serious punctures, like intentional knife cuts, can be vulcanized like any other tire.

Two Hundred Thousand pairs now in actual use. Over Seventy-five Thousand pairs sold last year.

Notice the thick rubber tread "A" and puncture strips "B" and "D," also rim strip "H" to prevent rim cutting. This tire will outlast any other make—SOFT, ELASTIC and EASY RIDING.

DESCRIPTION: Made in all sizes. It is lively and easy riding, very durable and lined inside with a special quality of rubber, which never becomes porous and which closes up small punctures without allowing the air to escape. We have hundreds of letters from satisfied customers stating that their tires have only been pumped up once or twice in a whole season. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially prepared fabric on the tread. That "Holding Back" sensation commonly felt when riding on asphalt or soft roads is overcome by the patent "Basket Weave" tread which prevents all air from being squeezed out between the tire and the road thus overcoming all suction. The regular price of these tires is $8.50 per pair, but for advertising purposes we are making a special factory price to the rider of only $4.80 per pair. All orders shipped same day letter is received. We ship C.O.D. on approval. You do not pay a cent until you have examined and found them strictly as represented.

We will allow a **cash discount** of 5 per cent (thereby making the price $4.55 per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. We will also send one nickel plated brass hand pump and two Sampson metal puncture closers on full paid orders (these metal puncture closers to be used in case of intentional knife cuts or heavy gashes). Tires to be returned at **OUR** expense if for any reason they are not satisfactory on examination.

We are perfectly reliable and money sent to us is as safe as in a bank. Ask your Postmaster, Banker, Express or Freight Agent or the Editor of this paper about us. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a small trial order at once, hence this remarkable tire offer.

COASTER-BRAKES, **built-up-wheels, saddles, pedals,** parts and repairs, and everything in the bicycle line are sold by us at half the usual prices charged by dealers and repair men. Write for our big **SUNDRY** catalogue.

DO NOT WAIT but write us a postal today. **DO NOT THINK OF BUYING** a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it **NOW.**

MEAD CYCLE COMPANY, Dept. "J L" CHICAGO, ILL.

if six or eight rows of each kind were set alternately. But we never know what the season is going to be.

2. There is no question but honey bees are helpful in distributing pollen While they are taking nectar from a flower, they are always moving over the flower in such a way as to collect pollen on their lower parts, and when they light on the next flower, much of this pollen is deposited. In this way many blooms are pollenized that would remain barren, were it not for the bees.

⚜ ⚜

Mrs. J. E. C., Brandon, Minn. Will you please tell me how to prepare hellebore for spraying?

The way to prepare hellebore is to use one ounce of the poison with three gallons of boiling water. Remember that hellebore soon loses its strength and it should be used immediately after making.

⚜ ⚜

E. W. H., Ft. Valley, Ga. I have one acre and a half of strawberries set this spring—Lady Thompsons. The land is fresh, new ground; loamy soil. I broke it up with a two-horse plow and then harrowed it, laid off my rows three and one-half to four feet apart, and strewed barnyard manure in the furrow and then bedded it up; setting the plants on the bed about two feet apart. I have more barnyard manure; how could I apply it and when to get best results?

2. What system is best for the Lady Thompson—the single or double hedge row?

3. How many runners should each mother plant be allowed to make?

Your land is now in excellent condition as a result of the manure already applied, and the way to get the best results from the balance of the manure is to apply it to the land just before the last cultivation in the fall.

2. The double-hedge row.

3. It depends upon the system you are following. If you follow the single-hedge row, you will permit two runners to develop; if the double-hedge row, four runners. Please note illustrations of single-hedge and double-hedge rows on page 121 of this issue.

⚜ ⚜

S. N., Newton, Kan. Have a nice patch of berries—over one acre—that was set out in 1906. I mulched them in November with wheat straw. Now the patch is covered with green wheat. Is there anything I can do to get rid of the wheat?

The wheat which is coming up through the mulching can be removed in several different ways. If this wheat is just coming through the mulching, a large percentage of it can be smothered out by raising the mulching up with a fork and laying it back on the ground again. This will put the mulching on top of the wheat and to a large degree will smother the wheat down. Or if you will take a wide, sharp hoe, and work it under the mulching, the wheat easily may be cut off just below the surface. If the wheat is grown through the straw, and has made quite a growth, then the best way to get rid of it is to pull it up by hand. By doing this work after a heavy rain, it will come up very easily.

⚜ ⚜

J. A. P. Ripon, Calif. I have just finished setting 17,000 plants. Do you mean that I should go over the whole patch every few days and pick off the blossoms? That would be a terrible job.

2. I put them twelve inches in the row (single-hedge) and the rows thirty inches apart, intending to allow no runners to grow. Is that too close? I put them close on account of water; this land is almost pure sand and we must irrigate two or three times a week.

3. My plants have berries large as brown beans now and full of bloom. Some have fifteen or twenty even twenty-five berries on now. Shall I take them all off?

4. Last fall when I came here my soil was just full of small red ants and they are appearing again. Neighbors tell me they will damage my fruit. What can I do to kill them?

5. Berries ripen here the last of March and the first of April and Northern growers will not ship plants until April. Would that not be too late to plant them? This sand soon dries out and there is no rain after March to speak of.

6. How often will I have to cut runners and when will I have to beg n?

7. Do you think I could mulch any here where I have to irrigate so frequently?

8. My Splendid plants do not look half so well as the Marshall planted at the same time. Is that their nature or have I poor plants?

9. There is here a bug or fly resembling a lady bug. They come in June and just clean out all the cucumbers, beans, cabbage, melons, and nearly all garden truck. Do you think they will eventually go to the berries? What are they and what spray can I use on garden truck for them?

Just as soon as your young plants bloom, you should go over the entire field and remove the bloom. This is done by cutting or pinching off the fruit stems. It is not a very long job. The buds from your 17,000 plants should be removed in less than two days by one man.

2. The distance apart you have set those plants is correct, inasmuch as you intend to remove the runners.

3. If the berries you speak of are on the young set plants, by all means cut them off at once. If you do not, they will draw all the strength from the plants and this will possibly result in losing a large per cent of them.

4. Ants of any kind can be discouraged a great deal by thorough cultivation. They love to work in solid soil and the looser you keep your soil and the oftener it is stirred, the more it discourages the ants.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block. Syracuse, N. Y.

Old Trusty

Incubators and Brooders

The really automatic incubator—start it and it runs itself. Regulator so perfect that you might throw away the thermometer, if you wanted to. Sold on

40, 60 and 90 DAYS' TRIAL and 5 YEARS' GUARANTY

More sold in 1906 than any other make and every patron satisfied. You will be, too.

SEND FOR FREE BOOK.

Johnson's Chicken Book—bigger and better than ever Full of common-sense chicken talk, 300 pictures. It will save you money. Write today sure.

M. M. JOHNSON CO., Clay Center, Neb.

Poultry Magazine,

Monthly, 50 to 100 pages, its writers are the most successful Poultrymen and women in the United States. It is

The POULTRY TRIBUNE,

nicely illustrated, brimful each month of information on How to Care for Fowls and Make the Most Money with them. In fact so good you can't afford to be without it. Price, 50 cents per year. Send at once for free sample and **SPECIAL OFFER TO YOU.**

R. R. FISHER, Pub., Box 86, Freeport, Ill.

Automatic BUCKEYE Incubator

All Metal, Fire Proof, Continuous Hatcher.

NEEDS NO THERMOMETER.

Adjusted by us and ready to run when you get it. Guaranteed for five years. Good credit at home is good with us. Get the best and save money. CATALOGUE FREE.

BUCKEYE INCUBATOR CO. Box 49, Springfield, O.

NATURE'S RIVAL BROODERS

THE Brooder that rivals nature because it has a hover as natural as an old hen. Send today for my circular explaining why they raise more and stronger chicks than other Brooders, also why they cost you only 75c to $1.00 each.

S. G. ROBINSON, Jr., Inventor and Patentee, R. F. D. 7, West Toledo, O

We do not know of any practical way to destroy them.

5. During the early part of April Northern plants are perfectly dormant. The roots are thoroughly caloused and if properly handled every one should grow and produce big crops of berries. Dormant plants will always carry much better than plants that have started to grow.

6. You should start cutting the runners as soon as they extend beyond the outer edge of the foliage of the mother plant. The cutting should be done every week or ten days, depending somewhat upon weather conditions. If the weather is wet the runners will grow faster and more abundantly than in dry weather.

7. In your locality the mulching should merely be placed along each side of the rows, and just enough of it should be used to keep the berries clean during ripening time. This will leave room enough between the rows for the irrigating furrow.

8. The Splendid variety makes a very small foliage compared to Marshall. The Marshall grows quite tall and upright, while the Splendid has a spreading tendency and grows close to the ground.

9. The little insect that does so much damage to your cucumber vines, is the striped cucumber beetle. It very much resembles the lady bug. Soon after the cucumber appears above the ground in the spring, this beetle starts to feed upon the leaves and stems, and in many parts of the country is quite destructive. The female beetle deposites its eggs in the soil about the stems of the plants, and the larva resulting, feed upon the roots. The best remedy is tobacco dust. After the seeds are planted a large handful of tobacco dust should be sprinkled over the hill. It will not hurt if this tobacco dust is put on the cucumber vines, as it is a fertilizer as well as a preventive against these insects. We do not think they ever will trouble your strawberry plants.

E. M. C., Belfast, N. Y. We have a field of sandy loam that in the spring of 1904 was well covered with stable manure after a crop of corn the previous year. The field was planted to potatoes and in 1905 was sown to oats and seeded to clover and timothy. In 1906 it was top-dressed with stable manure and one crop of clover was cut and a second crop turned under in the fall preparatory to setting strawberries this spring. Would we receive any benefit from broadcasting and working in with the soil ashes made from sawdust—mostly hemlock?

The manner in which you have prepared your piece of soil for strawberries is ideal and it should give you excellent results when set to well-developed plants, provided you give them good care from start to finish. If your soil is of sandy loam, it will be all right to apply seventy-five bushels of ashes made from hemlock sawdust. Ashes of this kind are not so strong as hardwood ashes, therefore may be applied more heavily. If the ashes were from hardwood, we would advise fifty bushels to the acre.

The Strawberry Photographic Contest for 1907

LAST YEAR the photographic contest between members of The Strawberry family aroused much pleasant rivalry, and resulted in giving to the world many beautiful and instructive views of strawberry fields. It is our purpose to make the contest this year of even greater interest to all. We therefore shall offer a duplicate set of prizes----one for the best photograph of a field of strawberries not less than one acre in extent; the other set of prizes for a photograph of a family strawberry patch—as follows:

A---Commercial Strawberry Field		B---Family Strawberry Patch	
1st prize Photograph, cash	$5.00	1st prize Photograph, cash	$5.00
2nd prize Photograph, cash	3.00	2nd prize Photograph, cash	3.00
3d prize Photograph, cash	2.00	3d prize Photograph, cash	2.00

It is to be understood that all photographs submitted in this contest are to be the property of the Kellogg Publishing Company. The season will extend from spring until late fall, the individual contestant choosing his own time for taking the view; the desire being to show ideal conditions at every stage of development of the plants. Expert photographers will pass upon the merits of the photographs and award prizes.

The Kellogg Publishing Company

Three Rivers, Michigan

I. H., Clifton, Ia. What effect on land will bone dust or meal have that has been dissolved with sulphuric acid and then used as a fertilizer for strawberries? I can obtain the acid and bone here. As Clifton is a mining camp they manufacture their own acid; and also we have a slaughter pen near by. I do not know what effect the sulphuric acid will have and I want your opinion. I got the idea out of an agricultural bulletin on how to dissolve the bone with the acid.

The effect of the acidulated bone meal upon the soil will be excellent if the proper chemical mixure is made. The difference between phosphoric acid and plain phosphate rock in their effect is that the acidulated material is rendered more quickly available than where the application is in the form of phosphate rock. Be careful in dissolving the bone that the work be done in accordance with a well tested formula.

Subscriber, Wabasha, Minn. Does it injure strawberry plants to put them into luke-warm water long enough to wash the dirt out of the roots, before packing them to ship? Answer in The Strawberry.

We never have washed plants before shipping them, and certainly would not recommend it. A small amount of sand or dirt among the roots will do no injury. If the ground is dry when the plants are

dug and the soil thoroughly shaken out, very little will remain among the roots.

W. T., Rhinebeck, N. Y. When strawberries are raised on shares how should the proceeds be divided? A furnishes land and manure. B plows, harrows, plants, purchases the plants and does all the work—marketing, picking, etc. What share should A receive? What share should B receive?

2. What would you plant upon the old strawberry bed when it is plowed up about July 15?

3. If a piece of land is plowed in the spring and allowed to lie bare the whole year, planting nothing upon it, but harrowing it once a week for the entire season to the depth of three inches, in this way having it covered with a dust mulch all the season, does the field gain or lose fertility?

Matters of this kind usually are left to agreement between the parties in interest, but as a rule we think the man who furnishes the land and manure should receive a fair rental for his land and pay for the manure at the going price per ton in the particular locality. B is taking all the chances and doing all the work, and certainly should not allow A more than one-fourth of the net profits. An ordinary crop would give A large rental for his land and a high price for his manure.

2. We often have sown cowpeas with splendid results. A great amount of mulching could be grown by sowing two bushels of corn to the acre, but we prefer sowing peas, especially where the ground is to be set to strawberry plants the following spring.

3. Would lose much fertility.

G. H. G., Lewiston, N. Y. What is the easiest and most practical method of keeping the tally of the number of quarts of each picker?

2. In setting one-half acre of strawberry plants will it be all right to set the rows four feet apart and allow them to mat about eighteen inches wide? Would that leave vacant space enough between rows?

3. Would it be better in setting plants to make holes with a hoe, so the roots could be spread out more evenly, or use a spade or dibble?

The easiest and most practical way of keeping tally of the number of quarts of berries each picker gathers is to furnish each picker with a tally ticket. On this ticket are numbers, running from one to four to the total of 100. Numbers should be punched out, corresponding to the number of quarts taken from the picker.

2. We prefer making the rows three and one-half feet apart and setting the plants from twenty-four to thirty inches apart in the rows. Then allow each of these plants to make four runners and layer these runners zig-zag, so as to form a double-hedge row. However, if you wish to grow the berries in a matted row, your method is correct.

3. The best tool we ever have seen for setting plants is the dibble, which makes an opening plenty large enough to permit the roots of the plant to be well spread when setting.

G. H. G., Lewiston, N. Y. I am going to set one-half acre to strawberries of the following varieties: Gandy, Pride of Michigan, Dornan, Excelsior and Texas Of the different varieties mentioned which would do the best in single or double hedge row? In either case how far apart should they be?

We recommend the double-hedge row for all the varieties you name, and if you are to cultivate with a horse you should place the rows thirty-six inches apart, and set the plants twenty-four inches apart in the row.

J. L., Stillwater, Minn. When land is fairly fertile and a good coat of barnyard manure is applied would any kind of commercial fertilizer on the strawberry patch be of any value?

2. Would you spray your strawberry patch if there are no apparent signs of insect pests and fungous diseases? If so, what preparation would you use?

3. Can you give me the name of a good knapsack sprayer that can be used for both strawberries and potatoes?

2. Does spraying in any way injure or weaken the strawberry plants?

Your barnyard manure will have supplied your soil with sufficient plant food, and no commercial fertilizer will be necessary.

2. We should not spray unless there were signs in the patch of the presence of fungous diseases or insect pests, or unless we knew of their presence in the neighborhood. If we were seeking to prevent fungous diseases we should use Bordeaux mixture; if insect pests, we should use the regular Paris green formula.

3. Morrill & Morley, Benton Harbor, Mich; The E. C. Brown Co., 61 Jay St., Rochester, N. Y; The Rochester Spray Pump Co., 12 East Ave., Rochester, N. Y., all make sprayers which would serve your purposes well.

4. Spraying is a source of strength to the plants, as it tends to keep them perfectly clean and healthy.

F. L. F., York, Pa. When I removed the mulching of straw this morning from my little garden patch of strawberries I found very many of the outer leaves dead, black and crisp; the center of the plants being green. Is this a natural condition, or may it have been caused by too heavy mulching, or leaving the mulch on too long?

2. What is the object of covering the crown with earth after the first crop?

The condition of which you speak is one entirely natural, as there are always decayed leaves attached to strawberry vines at the season to which you refer.

2. The object of covering the crown with earth after the first crop is to make the roots start. An entirely new system of roots is developed at this time.

BERRY BOXES

and all kinds of Fruit Packages

OUR SPECIALTIES:

Quart and Pint Berry Boxes, 16 and 24-quart Crates, Picking Stands, Bushel Crates for Vegetables, All Kinds of Grape and Peach Baskets, Bushel Baskets with or without covers, Half-bushel Picking Baskets with strong handles, and many other convenient packages for fruit and vegetable growers; the most durable made

Write for our **Free Catalogue.** It describes and illustrates everything we make

GEO. B. THAYER & CO., Benton Harbor, Mich.

E. A. C., Rhode Island. Do you think it will be safe for me to set out plants this spring where the grub troubled me last season?

2. I have some Wm. Belts in propagating bed. I am told they rust badly. Shall I spray them after I've planted them out or before; and what is best to use?

3. I have a bed fruiting this year for the second time; am going to plow under after last picking—about July 10. Could I plant corn for mulching after that time and secure a crop.

I like the strawberry. It is a good clean paper.

Soil which has been cultivated for several years is safer than new land. If you have other ground, we would not use the ground where the grubs were found so abundantly last year.

2. The Wm. Belt variety has tender leaf tissues, which make it quite susceptible to rust spots. Spraying with Bordeaux mixture will prevent this. The first spraying should be given after the young plants begin to grow nicely and repeated every ten or fifteen days throughout the growing season. The number of times the spraying need be done will depend much on weather conditions. If the weather is wet and muggy, spraying should be done more often than during dry or regular weather. Use Bordeaux mixture.

3. You should get a very fine growth of corn by sowing two bushels of good seed to the acre after July 10, and this will make good mulching for your berries.

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Published the First of Each Month by

The Kellogg Publishing Company

Three Rivers, Michigan

W. H. BURKE - - - - - - Editor
F. E. BEATTY - Instructor in Cultural Methods
ARTHUR D. AVERY - - - - Manager

ROBERT S. FOUNTAIN Western Representative
315 Dearborn St., Chicago, Ill.

S. E. LEITH Eastern Representative
150 Nassau St., New York City

Address Communications and make all Remittances to The Kellogg Publishing Co., Three Rivers, Mich.

TERMS OF SUBSCRIPTION:

One Year, postpaid - - - -	$1.00
Two Years, postpaid - - - -	1.50
Three Years, postpaid - - -	2.00
Five Years, postpaid - - - -	3.00

Foreign, 25 cents per year additional

RATES OF ADVERTISING:

15 cents per line, agate measurement, or $2.10 per inch, with 2 per cent discount for cash.
Classified ads. 3 cents per word; cash to accompany order.
No questionable advertisements inserted at any price.

Entered as second-class matter at the Postoffice at Three Rivers, Michigan.

MAY 1907

MAY is the month of hope, of lively expectation, and of active work along all the lines of agriculture, with its myriad ramifications. April's soothing and fructifying showers have softened the earth crust and helped to burst the seed shell; verdure covers the earth, the rich shades of green smiling back to the smiling sun in token of her appreciation of his mighty and all-pervading warmth. It is the time when lassitude should give way to energy; no more the glowing fireside and the enthralling book. But mind alert and muscle tense with the vigor of health and the spirit of achievement are the order of the season; and if we would make the year of value and advance, we must be up and doing. Let us make this year a noteworthy one in the strawberry world. It will afford satisfaction beyond anything we may dream. Let each one of us make a field or a patch of such beauty that when its photographic reproduction appears in The Strawberry, it will challenge the admiration of the world and win the leading prize.

KALAMAZOO direct to you!" was the cheering word the citizens of that beautiful and thriving Michigan city extended to William Thompson as an April-day expression of their esteem for and confidence in the man who has made that phrase famous. For one year Mr. Thompson had served as mayor of that city. It was said of his administration that there were as many men of the opposition party selected to help him administer his trust as there were in his own. This satisfied the partisans of neither side, but the common people recognized it gladly; also the fact that he held the vicious elements of the city in check. The result was an alliance of the partisan and vicious elements to defeat him. But it was an "April-fool" for them. The aroused people flocked to the polls and re-elected Mayor Thompson by a handsome majority, and the city of Kalamazoo is glad. So are the thousands of friends of the famous stove maker all the country over, who know that it takes an honest man to make such goods as are turned out under his direction; for Mayor Thompson is the vice-president and general manager of the famous Kalamazoo Stove Co., with whose splendid merits so many readers of The Strawberry are familiar. It's a good day in the municipal history of the land when such men as Mr. Thompson are chosen to the important office of mayor.

READERS of The Strawberry may be interested to know that the general land office at Washington has issued a statement giving the location of public lands reopened to entry by the president's recent order. Previous to that proclamation lands were included among those classed as coal lands and withdrawn from entry. The reopened sections are Colorado 1,250,000 acres, New Mexico 2,000,000 acres, Montana 2,100,000 acres, Oregon 710,000 acres, Wyoming 1,240,000 acres, Utah 138,000 acres, Washington 320,000 acres. During the first six months of the current fiscal year the general land office at Washington reports a heavy business. The net increase in the number of entries for all classes of public lands was 17,233, while the net increase in cash receipts averaged $1,500,000 According to Statistican C. A. Blanchard of the reclamation service, the government is at present engaged on 25 important projects in the West involving a total expenditure of $60,000,000. The work when completed will make productive 3,198,000 acres of arid land.

FRUIT interests in British Columbia are strong and the recent annual meeting of the association bearing the name of that province was most interesting. By the way, this association holds quarterly meetings. That for April was held at Summerland, the July meeting will be at Kaslo, and that of October at New Westminster. The members of the association went on record as indorsing the inspection of all fruits before leaving docks, warehouse or station, and the rejection of all fruits shown to be infested with San Jose scale and other injurious insects. James Johnston, Nelson, was elected president for the ensuing year, and W. J. Brandrith, Ladner, secretary.

FOOD containers need to be sanitary and fit to keep food in. Anything that contaminates or injures the color, flavor or odor of foods, should not be brought in contact with the foods. You might as well say that an old rubber shoe would hold water and therefore was fit for a drinking vessel It presents the matter in precisely the same light. They take old rubber shoes, rubber syringes and old rubber waste that has been used in any and all ways, melt it over and make what they call shoddy. Out of this they make the important part of their food container. What woman would buy a dozen rubber rings if she knew they were made from such material? And still, possibly in a temporary way these gaskets may preserve meats and vegetables; but, is preserving all you want? If they will add that they are preserved in a fit form for use and will state the facts truly, what the rubber gasket is made of, that they use, then their case will be complete and a customer can determine whether he wants such goods or not. These shoddy rings do not contain more than five per cent of rubber. One of the most experienced rubber manufacturers of this country, connected with a concern that turns out twenty-five to thirty carloads of jar rings a year, declares there is not an ounce of rubber in them, every part and parcel of them is shoddy. People who use the Economy jar are absolutely free from any trouble on that score.

IN this day of scarce labor and high prices economy is the watchword on every well-regulated farm. One of the most valuable inventions ever made in the interests of farm economy is called the 2-in-1 Harrow and is manufactured and sold direct to the farmer by the Naylor Manufacturing Co. of No.4 Hillgrove avenue, La Grange, Ill. Mr. Naylor the superintendent and general manager, is a practical farmer of many years' experience. This harrow combines in one implement the virtues of both a spring-tooth and spike-tooth harrow, and the construction is such that all the weaknesses of both the spring-tooth and spike-tooth have been overcome. Where in former years it was necessary to go over new plowing with a spring-tooth harrow to break up the sods, following with a spike-tooth to complete the process, this new harrow does it all at one operation, thus saving half the time of men and team. This harrow has also developed many other fea tures in actual use, which are highly approved by Agricultural Experiment Stations and all who have used it. The cost for this harrow is very low. If you don't know how big a help it is, write to the above address and full imformation will be sent you.

THE fundamental scientific principles underlying the successful growing of large and unusually profitable potato crops are simply and admirably stated in the little book "The Acme of Potato Profit," which every one of our readers should have. It takes up particularly the subjects of soils, their preparation, and the planting of the seed—the things which most affect the success of the crop. It tells how to cut down the expense of planting, how to insure a strong, even stand, what are the faults of the different methods of planting and how to avoid them. It tells of the one method of planting that can secure perfect results, and how this is done with the Acme hand potato planter, at a cost of but one dollar. It all makes a story so interesting and instructive, a story so clearly and simply told that our readers should not fail to read it. "The Acme of Potato Profit" is sent free by the Potato Implement Company, Box 531, Traverse City, Mich. Send for it.

We Want Every Reader of

THE STRAWBERRY

To be an Active Agent for

The Strawberry

READERS know how good a thing this magazine has proved itself to be, and can tell others about it in the most effective way. In addition to the satisfaction you will get out of doing a good thing for your neighbor and for us, we will pay a liberal commission on every subscription secured.

The Kellogg Publishing Co.

THREE RIVERS - - MICHIGAN

GROFF'S GORGEOUS GLADIOLI

Bloom From July to October

"A SEARCH through the floral kingdom, be it ever so painstaking and complete, will discover no flower of such easy culture, or embracing so great a range of color, in such endless combinations and variety, as the Gladiolus. Rare and expensive orchids do not compare in rich beauty with these superb flowers."

THE STRAWBERRY has made an arrangement whereby 25 bulbs of these wonderfully beautiful and delicate flowers may be had almost for the asking. Remember that many of these bulbs sell for as high as $15 per hundred.

All Subscribers to The Strawberry, new and old,

Are offered the following:

25 Groff's Hybrid Gladiolus Bulbs - -
Six months' subscription to Garden Magazine
One year's subscription to The Strawberry

$1.75

GROFF'S HYBRID GLADIOLI WON THE GRAND PRIZE AT THE WORLD'S FAIR AT ST. LOUIS. They will give you a flower garden rich in colors of exquisite shade. The 25 bulbs we give you free will make your garden a veritable fairy land.

THE GARDEN MAGAZINE is one of the handsomest and most valuable publications in the world. It tells how to handle your flower and vegetable gardens to insure perfection. It comes once a month.

THE STRAWBERRY is handsomely printed, beautifully illustrated and its Correspondence School Department is the most valuable feature ever adopted by a horticultural publication. All your questions regarding strawberry production are answered by the world's greatest strawberry expert. It also is a monthly visitor.

FLOWER LOVERS: Don't miss the opportunity of a lifetime, but send us $1.75 and get The Garden Magazine for six months, The Strawberry for one year, and 25 of Groff's World-famous Hybrid Gladioli, guaranteed to reach you promptly and in good condition.

The Kellogg Publishing Co.

THREE RIVERS, MICH.

June 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

The Delicious Southern Strawberry

Picking Strawberries on line of Illinois Central R. R. in Louisiana

PROLIFIC IN QUALITY, EARLIEST ON THE MARKET, AND A

LONG GROWING SEASON

IN LOUISIANA AND MISSISSIPPI ON LINE OF THE ILLINOIS CENTRAL R. R.

THE SOUTHERN STRAWBERRY GROWER has an advantage over his brother of the North in getting his berries into market early. From Louisiana and southern Mississippi, berries are frequently ready for market during the montb of March, and shipments continue until June, or until auch time as the Northern markets are so glutted as to make it unprofitable to ship them so far, after which the Southern markets are still available. The season for picking berries in the South is much longer than in the North; they continning to blossom and ripen for two months, and in some cases it has been even three months from the time of the first to the last picking. The Illinois Central Railroad Company, appreciating to the fullest extent the necessity of having fruit and vegetables grown on its line reach Northern markets in the best possible condition, has not only provided the best of refrigerator cars, but, during the season, run fruit trains from New Orleans to Chicago, shipments being picked up from all stations, say within one hundred miles, and from the last point the train is run through to Chicago on fast schedule, stopping only for coal and water, and at certain points for re-icing. In addition to its system for handling perishable products en route, the "Central" has a storehouse or fruit warehouse at Chicago in which fifty cars can be quickly handled at one time.

Send for 64-page Illustrated Book entitled "About the South"

issued by the Illinois Central R. R. Co. and describing various matters of interest to the home seeker and investor, including information as to Fruit Growing. The book is free and can be had by addressing

J. F. MERRY, GENERAL IMMIGRATION AGENT, I. C. R. R., ROOM A, HIVE BLOCK, MANCHESTER, IOWA

The Strawberry Photographic Contest for 1907

LAST YEAR the photographic contest between members of The Strawberry family aroused much pleasant rivalry, and resulted in giving to the world many beautiful and instructive views of strawberry fields. It is our purpose to make the contest this year of even greater interest to all. We therefore shall offer a duplicate set of prizes---one for the best photograph of a field of strawberries not less than one acre in extent; the other set of prizes for a photograph of a family strawberry patch---as follows:

A---COMMERCIAL STRAWBERRY FIELD		B---FAMILY STRAWBERRY PATCH	
1st prize Photograph, cash	$5.00	1st prize Photograph, cash	$5.00
2nd prize Photograph, cash	3.00	2nd prize Photograph, cash	3.00
3rd prize Photograph, cash	2.00	3rd prize Photograph, cash	2.00

It is to be understood that all photographs submitted in this contest are to be the property of the Kellogg Publishing Company. The season will extend from spring until late fall, the individual contestant choosing his own time for taking the view; the desire being to show ideal conditions at every stage of development of the plants. Expert photographers will pass upon the merits of the photographs and award prizes.

THE KELLOGG PUBLISHING COMPANY

Three Rivers, Michigan

"Better Than Gas."

"The Angle Lamp is certainly the best lamp we have ever had in the house," writes Mr. Johnson of Flint, Mich. "We like it better than Gas or Electricity. We have both, but prefer to use the Lamp. It is not so expensive as either and gives a much better, softer light for the eyes."

THE ANGLE LAMP

is the **new** method of oil lighting. In its construction all "old foggy" ideas have been abandoned. The chimney draft principle of air supply which for so long has made oil-burning devices smoky, smelly and troublesome, has been replaced by an entirely new method. The result is a lamp as clean and convenient to operate as gas and of such splendid lighting power that even such people as ex-President Cleveland, the Rockefellers, Carnegies, etc., use it for lighting their estates in preference to all other systems.

30 DAYS TRIAL.

But write for our catalog "54" giving full information and our 30 days trial proposition. All styles $1.80 up.

THE ANGLE MFG. CO., 159-161 W 24th St. New York

Better Fruit

A Fruit Journal devoted exclusively to commercial fruit growing. Articles on up-to-date methods by able and successful men. Methods of the West, famous as producers of fancy fruit and world renowned as high-price getters

Subscriptions, $1.00 per Year

Sample copies mailed on request

BETTER FRUIT PUB. CO., HOOD RIVER, ORE.

Entered as second-class matter at the Postoffice at Three Rivers, Michigan

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 6 Three Rivers, Mich., June, 1907 $1.00 a Year

THE preparation of the strawberry bed for a second crop is one of the interesting and important features of June work. It should be done as soon as the last picking of the berries is made. The best way to do this work where all the conditions are favorable is first to go over the field with a common mowing machine, allowing the horse to walk astride the row, and mowing off one row at a time, being careful to see that the mower does not get too close to the crown, although there is very little danger of doing this, as the crown usually is well protected by the surface to the soil, or a scythe may be used for the purpose. The mowing should be done in dry weather, and when the indications are that no rain will fall until after the field is burned over. If this dry weather continues for thirty-six or forty-eight hours after the mowing is done, the fields will have become sufficiently dry to burn very readily. In the event a heavy rain should fall between the mowing and the burning, the vegetable matter would be so wet as to make it dangerous to burn over at all, as a smouldering fire would be sure to destroy the crowns of the plants.

But assuming that the plants are thoroughly dry, select a day when the wind is blowing quite briskly, and set fire to the plants In doing this you should go to the windward side of the plants, and set the entire bed on fire as quickly as it can be done. Five or six acres frequently have been burned over in a space of time not exceeding fifteen minutes. If the mulching has been put on quite heavily, it is best either to remove part of the mulching or to loosen it up, a work which may be done with a hay tedder if the field be a large one. If the patch is not large, the work may be done with a fork.

Narrowing down the rows should be done immediately after the burning over is completed. To do this take a common breaking-plow or bar-shear, and throw a furrow from each side of the row into the center. This will leave a ridge directly between the rows, which may be leveled down or thrown back to place by the use of a one-horse five-tooth cultivator. After the cultivator has been run through, a reversible harrow with the teeth thrown slightly backward, drawn across the rows, will level the surface nicely. It also will draw fine soil over the crowns and bury them completely, a very important work by the way.

One strawberry reader asked the other day why the crown was covered in preparation for second crop, whereas, when we set out the original plants, we leave the crown above the surface of the soil. The reason for this is that after the plants have fruited a crop, the original roots are entirely exhausted, and have become a lifeless mass of wire-like vegetation. By covering the crowns, a completely new root system will be encouraged. This new root system is established just above the old roots, and beneath the crowns of the plants. If we fail to cover the crowns of the plants at this time with soil, the roots will grow very sparsely, the plants will send out no runners, the foliage will be small, and the fruit-yield insignificant. But where the crowns are covered as described, the plants will come up through the soil in a few days, and in a short time the foliage will have the bright, glossy appearance of health, and the bed will be as vigorous and capable of producing as fine a crop of fruit as would be the case with newly set plants.

After the plants have started to growing again, go over the field very carefully, looking for the weak ones that should at once be cut out with a hoe, leaving nothing but strong healthy plants to act as mothe plants in this old-new field. The mother plants should be left about sixteen inches apart, and if you have adopted the double-hedge row, allow four runners to form and layer them the same as you would do in setting out the new bed. In cultivating the field for second crop, follow the same general plan as that observed in cultivating young plants, carrying forward this work until the early fall. Keep the runners in check, never let the weeds and grass get the start of you, and your second crop will be a bumper.

Many of our readers doubtless grow strawberries among their orchard trees. Wherever this is done we advise most emphatically against burning over the bed. Simply mow off the vines, then rake up the litter and haul it away, narrowing down the rows in the same way as if the bed had been burned over While the excellent effects of the fire is lost upon beds grown in orchards, one cannot afford to take the risk of destroying the

permanent trees for the sake of the strawberry bed, of course.

We are often asked, What about the third crop? From our point of view there should be no third crop. Certainly, no one who grows strawberries commercially should think of allowing his plants to fruit for the third time, and we always advise new setting every second year. After the second crop has been picked, we mow over and burn the plants, the same as is done in the case of preparing for second crop. The burning at this time is for the purpose of destroying all insect pests and fungous diseases. After burning, plow the plants under. Thoroughly prepare it and sow the ground at the rate of about six pecks to the acre of cow peas or field peas. Let this crop mature and plow under peas, vines and all, and sow the ground to rye for a winter cover crop. We consider it always best to grow some other crop the succeeding year, rather than to reset the same soil to strawberries. Another crop, such as potatoes or corn, renovates the soil, cleansing it from all impurities which may remain from the preceding crop, and prepares it once more to develop strong, vigorous plants. This is one of the most important effects of crop rotation. Another important result is that insects and fungi are thus discouraged. The renewing of the soil resulting from such treatment is especially felt by the strawberry plant, and the benefits of rotation are nowhere more marked than in strawberry production.

The Young Man's Opportunity

HOW many young men who, because they do not have the cash in hand with which to start themselves in business, continue to seek employment at a daily wage which little more than gives them the bare necessities of life, and certainly never is sufficient to enable them to start out upon an independent career! Such young men fail to recognize the large opportunities that await them in the culture of fruit for market. Given a young man of clear mind, strong muscles and a heart that is ready to meet any fate, and he will find it a simple matter to secure possession of a piece of land lying within easy distance of a ready market for all the small fruit he can grow. Such a man would have little difficulty in thus securing what might be made into a handsome property, paying for it out of the results of his adventure in strawberry growing.

The other day we met a man who told us of an incident in his own life, that indicates what may be done in this direction. A bright young man living in a Michigan town who knows how to prepare soil, plant and cultivate, garner and sell a crop of garden truck, went to a gentleman in the town who owned twenty-six acres of fertile land just outside of the limits of the town. The young man had resolved that he was going into an independent line of work, where he no longer had to depend upon the caprice of others or changing conditions for a livelihood. He went to the owner of these twenty-six acres to tell him that he desired to start a truck garden on the land; that he had no money to pay down, but that he would pay over to the owner all surplus revenues as fast as they were received The owner was pleased with the man's frank way, and readily consented.

That was three years ago. Today that young man has paid out of the earnings of the land every dollar of the indebtedness upon it and has a property valued at no less than $4,000 representing the earnings and savings of but three years. This is a homely example, but what an inspiring one after all. Opportunities like this exist practically everywhere, only awaiting the action of the man with the skill and the pluck to open for himself the door of opportunity.

HIS LIGHT RADIATES AFAR

L. A. BORCHERS, LIGHTKEEPER OF TURN POINT STATION AT PREVOST, WASH., WRITES US AS FOLLOWS: "I HAVE EVERY COPY OF THE STRAWBERRY FROM THE FIRST ISSUE. IT HAS BEEN A GREAT HELP TO ME AS A BEGINNER, AND I VALUE IT VERY HIGHLY. YOU COULD NOT BUY MY LAST YEAR'S VOLUME FOR ANY TWO DOLLARS!"

As we look over the field of strawberry culture, and see how year by year, the demand for this delicious fruit is growing, and how rapidly, we almost had said greedily, the public seizes upon all first-class fruit that is placed before it, we are led again to urge our young friends to consider the extraordinary opportunities this field presents for enterprise.

Don't be afraid to ask for time on land that is lying useless. Very few land owners but would be glad to sell, when they know that they take no risk whatever and that the work one does upon the land enhances its value, rather than decreases it.

Don't be afraid to trust your own judgment in these matters. The man who goes to work with vigor and courage, has a troop of friends at hand, who will lend him encouragement and, if needs be, assistance. There is a great field here for bright minds and strong hearts, and the field will grow broader under the influence of cultivation.

Now is the time to make your arrangements for such an enterprise. Now is the time to get your land into condition for the setting of the plants in the spring of 1908. Do not delay, but lay hold upon this great opportunity and get to work, thus laying deep and broad the foundations for an independent business and a home.

Growing Berries in Florida

By E. B. Rood

I HAVE found the growing of strawberries in Florida both pleasant and profitable, but as I have been largely the pioneer in this section, I have had to blaze the way and often without a compass or chain, and as a result. in the earlier stages the course was zig-zag.

I did not know the varieties to plant and experimented with about fifteen before I found the one best suited to my conditions, viz., the Excelsior, a plant that will fruit and ripen early, even in cool weather and produce a highly colored and firm berry. I commence picking about Thanksgiving and continue to pick till May or even June.

I began to grow berries with the idea of shipping, and I am satisfied that I could ship profitably, but I found that few berries were grown in this county and our own city of Bradentown and all the surrounding towns consume large quantities of berries at 25 or 30 cents per quart—your money in your fist, no berries to spoil on the way to market and no commission man to fall out with.

I believe there are many such places in Florida where hundreds of dollars worth of berries could be grown and sold profitably. This is because the same skill required to make a success of strawberries, yields handsome returns in growing winter vegetables, $500 to $1,000 per acre not being very uncommon. A thousand dollars per acre is my mark for strawberries, and while I have not yet reached it I believe it can be done. At any rate I intend to stick to berries as one of my specialties, for a reasonably sure and remunerative crop.

One of my first serious difficulties was when to set out my plants. September and October, especially the latter month, were recommended, but I have found after a dearly-bought experience that July and August and up to September 15 possibly, are much preferable and I must grow my own plants I think, from plants imported from further north the spring previous. However, I am not sure of this, and am now doing some experimenting along this line.

Then I suffered from cut-worms. If I had had the remedy The Strawberry now gives, Paris green, shorts and honey, (I am a bee keeper) it would have been

worth hundreds of dollars to me, but the book I had, written by a man claiming to be an expert, said the only remedy was previous clean culture, and so the cutworms nearly ate me up.

What a wonderful advantage there is in beginning in any calling where the other fellow left off, and with the splendid strawberry literature you are giving us, this is largely possible for the growers of the finest fruit in the world!

I think that strawberry growing has a fine future in this section, as we can produce magnificent crops of fruit for many months when the greater part of our country has gone into winter quarters. Later on I may give my method of planting, fertilizing, etc., if you think your readers would care for them.

Bradentown, Fla.

Certainly we and our readers shall want Mr. Rood to give us his experiences. A man who is working for the $1,000-an-acre goal is the sort of strawberry grower we like to hear from, and very much should like to know just how the trick is done. And as the Southland is attracting many a Northerner to its sunshine and salubrity, we are sure that the recital will be as interesting to folks up this way as it will to those who reside nearer the Gulf. And even those of us who never may go South may get some helpful hints applicable to Northern conditions. By all means, let us have the account of the way Mr. Rood is making his fine success and expects to make a more monumental one still.—Editor The Strawberry.

The Empire Proves Its Claims

A dollar saved is a dollar earned.

Any cream separator will make some money for you.

But, if you knew of a cream separator that would not only *make* the most dollars, but would, at the same time, *save* the most dollars you'd buy it, and buy it now. Investigate the

Improved Frictionless

EMPIRE

Cream Separator

It's the separator you need, and want. That sounds like a big claim. But claims proved become facts. The Empire *proves* its claims.

Send for our new catalog and proofs.

Empire Cream Separator Company,

Bloomfield, N. J.

Chicago, Ill.

The Influence of Associates

By S. H. Warren

MY READERS will admit that the influence of associates is an important factor in human life, but probably few of them think that association has much to do with the products of a strawberry bed.

In our valuable publication, The Strawberry, we are often reminded of the importance of proper mating of pistillate and staminate varieties in order that all the blossoms of the pistillate varieties may be well pollenized so as to form fruit that shall not be "nubbins" or "buttons", as imperfect berries sometimes are called. Now there are other influences concerning which some of you may not agree with me, such as influence of color, influence of size, and influence of quality, all of which go into effect the same year the berries are growing. Some of these effects may not be as evident as others.

I have noticed that a light-colored pistillate variety, pollenized by a dark staminate, has darker-colored fruit than that pollenized by a light-colored staminate. If the color of the pistillate is thus affected, why will not the staminate variety transfer its other characteristics as well, even its size and its quality?

Years ago, when the Charles Downing strawberry was cultivated, some of these were once exhibited in Boston. Among the Downings of normal shape were some coxcomb in form, so conspicuous that the judges questioned their being true Downings. The exhibitor said that the berries all grew in beds strictly free from plants of any other variety than the Charles Downing. The only way in which he could account for the coxcomb shape of some of his fruit was through the influence of pollen from a bed of Sharpless on the other side of the path from his Downings. All old growers of strawberries know that the Sharpless, more than any other variety, produces berries of coxcomb shape, whereas the normal shape of the Downing is conical.

Since the pollen of the stamen has been known to affect the color and the shape of the developed fruit, may it not affect other characteristics as well? So, we should keep these things in mind when we choose the staminate varieties which are to pollenize our pistillates. An old friend of mine once said that in every strawberry bed, set out for his family use, he should put a few particularly choice plants, his own favorite variety, even if they were not very productive, for the sake of the influence of their pollen on the other varieties. This same friend of mine had grown and fruited two hundred thousand seedling strawberry plants, from which he had chosen but one variety that he wished to put on the market. Even this one never was introduced, for he died suddenly and, as no one knew where this particular variety grew, it was lost. I was given the privilege of taking plants from any of his seedlings, but I did not find his chosen seedling.

I am well aware that many writers say that pollen has influence only on the product of the seed pollenized, but they are mistaken, according to what I have seen with my own eyes, and "seeing is believing."

Weston, Mass.

THE Minnesota State Horticultural Society has a very interesting and valuable feature as a part of its plan of work in its annual reports from the vice-presidents of the society, these vice-presidents being apportioned one for each congressional district in the state. These reports give conditions of the fruit crop and the names of varieties of all kinds of fruit grown which do the best in the district represented by the respective vice-president. We note that H. J. Baldwin of Northfield, vice-president of the third congressional district, reporting on strawberries says that Warfield, Senator Dunlap, Sample and

Bederwood are found to be the most successful in his district. Henry Haggard of Excelsior, representing the fifth district, reports in the same way concerning Senator Dunlap, Warfield and Bederwood. John B. Katzner of Collegeville, representing the sixth district, names Dunlap, Splendid, Bederwood, Enhance and Lovett. H G. Westman of Sandstone, representing the eighth district, favors Bederwood, Warfield, Senator Dunlap, Splendid and Clyde. O'e J. Hagen of Hendrum reports that Senator Dunlap and Perfection carried off the laurels in 1906 in his district.

Some Strawberry Pointers

By George Wright

ON a basis of the results of the analysis recorded by the Oregon Experiment Station, a crop of 6,000 pounds of fresh strawberries, which is considered a fair yield per acre, will remove from the soil 8.4 pounds nitrogen, 10 pounds potash and 3.5 pounds phosphoric acid. It is thus seen that the strawberry, relatively speaking, is not an exhausting crop upon the land; yet practice has shown that it returns a more valuable profit from liberal manuring than most other fruit crops. This may, perhaps, be explained from the fact of its comparatively short-growing period in the early part of the year. Strawberries use large amounts of immediately available nitrogen, phosphoric acid and potash, and these elements must be in the soil in abundance to meet this early demand.

As to the experiment stations, all that have conducted experiments along the line of fertilizers for strawberries, recommend the use of well-rotted stable manure. Care should be taken that the stable manure is not used fresh, because of the large percentage of weed seeds which may be introduced into the land. Better results, however, may generally be expected from the use of barnyard manure, if it is supplemented by the use of the mineral fertilizers, phosphoric acid and potash. The great necessity of using the latter substances as a supplement to any other material which may be employed for this crop is clearly shown by the large portion of potash which this crop removes from the soil, as indicated above.

It is an open question whether it is not cheaper in most instances to use commercial fertilizers instead of stable manure. At the Maryland Experiment Station a carload of stable manure costing $31 was tried in comparison with commercial fertilizers costing about $7, with a change in growth of vines and early maturity of fruit decidedly in favor of the commercial mixture. Where barnyard manure is scarce or its cost is high, commercial mixtures of the mineral fertilizers should always be used to supplement the natural material.

The Georgia Experiment Station has also conducted experiments in the use of fertilizers on strawberries and with satisfactory results. At the latter station the following formula was used:

Superphosphate,	1140 pounds
Nitrate of soda,	540 pounds
Muriate of potash,	300 pounds

the mixture being applied at the rate of 800 to 1,000 pounds per acre. The first application of the fertilizers was made in rows just previous to planting in the fall after which the fertilizers were drilled in on each side of the rows in the spring. The above formula was tried in comparison with sixteen other mixtures. The best results were secured when 1,280 pounds kainit were used in place of the muriate of potash in the normal formula which furnished about the same number of pounds of potash.

The New York Cornell Station also has done considerable cooperative testing of a large number of fertilizers for strawberries, and while some contradictory data were secured on the different farms and plats, yet on the whole there was considerable uniformity of results. In general, it may be said that the potash and phosphatic fertilizers were more effective than the nitrogenous fertilizers, especially on lands well supplied with humus. The fruit produced with these fertilizers were better colored, better flavored and firmer.

It is undoubtedly true that far more effective results will be obtained by the use of a complete plant food, that is, one which contains all three of the elements, namely, phosphoric acid, potash and nitrogen, than by the use of an incomplete formula; and this is the general truth which holds for nearly all kinds of fertilization. These three elements are essential to the growth of plants, and if one of them be deficient, the others never can make up for that deficiency.

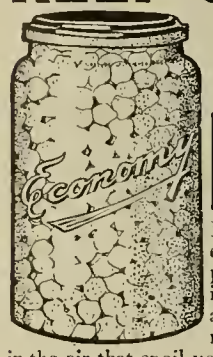
How to Care for Manure

"WHAT is the best way to preserve the manure from the poultry house?" asks a subscriber to the New York Tribune, and the editor answers as follows:

What do you want to preserve it for? Get it out on the land as soon as possible. The sooner it gets into the soil the better for the soil and for the hens, too. I have no patience with those fellows who lay such great stress upon penny economy. They make me tired, and being forced to deal with them has made me poor. And they are no better off than folks that do business. They work harder to save a cent than they need to work to earn a dollar The whole secret of the manure pile is, get it out on the land as fast as it is produced. Summer or winter, the place for it is back in some field or lot. I've read advice to some 3-cent farmers, by some 2-cent editor, that would make a man up a tree sick. Such advice as: Put it into a barrel, and put the barrel in the cellar, and, after it has stood two weeks, wet it with warm water and add an equal bulk of leaves and an equal bulk of stable manure, then put it into the attic until the last of July, and so on and so on. Such advice, I say, makes one sick of farming.

Get all such stuff back upon the fields. Haul every day, if you have a load. Spread it upon the snow, or upon the ground, be it dry or wet. Don't make a fertilizer factory of your cellar.

KEEP STRAWBERRIES RED



And serve with all the piquancy they had when Freshly Picked, by using the AIR-PROOF, SELF-SEALING

ECONOMY JAR

RED, PLUMP, DELICIOUS Strawberries in mid-winter are now easily possible. For years, comparatively few strawberries have been preserved. The faded, "sickly," mouldy, mushy results (from using imperfect jars) made the housewife dread the attempt—and she couldn't afford to waste materials. Put up all the Strawberries you want, now; and delight father, children and guests. It's the tiny microbes in the air that spoil your fruit (there's no way to keep them out of the rubber-ringed jars). But you can keep them out of the perfectly air-proof ECONOMY JAR. The ECONOMY has been tested over and over—is in use, today, by big packers and canners everywhere. Seals by suction and cannot work loose or shrink — forms an absolute seal—stays sealed until doomsday.

Use the ECONOMY, and you can have Strawberries on your table next winter as fresh, luscious and red as the day they were plucked.

The Only Jar that SEALS BY SUCTION Has No Rubber Ring

FREE RECIPE BOOKLET telling all about the jar, how to can all kinds of food products and giving dozens of new, tried recipes for home canning every day in the year, is in every case of Jars. One will be sent on request. Economy Jars are sold by dealers in the United States and Canada. If your grocer hasn't them, send us his name, and we will tell you how to get one dozen Jars free.

KERR GLASS MFG. CO. 265 Hoyt Street Portland, Oregon

EASTERN OFFICE, DEPT. R PHILADELPHIA, PA.

STEAM CANNING BOILER

For small Canning Factories and Home Use. Price $10.

Can your own corn, peas, pumpkin, fruit fish, corned beef.

Agents and Dealers Wanted.

NORTHWESTERN STEEL & IRON WORKS, Box B. F. Eau Claire, Wis.

CULTIVATING, HOEING AND SPRAYING IN A COMMERCIAL STRAWBERRY FIELD

Intensive Strawberry Culture--Importance of Adopting a System

By Frank E. Beatty

HAVE you decided upon the system you intend to follow in growing strawberries this season? What is your decision? Hills, single-hedge, double-hedge, narrow or wide matted row? It is very important that you decide upon the kind of row you prefer before runners start forming abundantly. If hills are your choice no runners should be allowed to make plants. They should be cut or pinched off before the node develops into a plant. It does not matter whether you cut the runners close to the mother plant or just back of the node. When the single-hedge row is wanted, each mother plant should be permitted to make two strong runners. Layer one on each side directly in the row. By placing soil on the runner cord just back of the node it will hold the runner in place, also hold moisture until the little plant takes root. In case a mother plant fails to grow, leaving a vacancy, then the two mother plants on each side of this vacancy, should make two runners and each runner allowed to make enough plants to reach across this vacant spot, so as to maintain a continuous line of plants. Or if an occasional mother plant appears less strong and vigorous than the others, the mother plant on either side may make two runners each, and each of these runners be allowed to make plants enough to reach to the weaker mother plant. Do not allow the weak plant to make any runners at all.

The double-hedge row is made by allowing each mother plant to send out four strong runners each, and these runners can make one or two plants each, depending upon the space between the mother plants. If the mother plants were set twenty inches apart in the row, then allow each runner to set one plant only. If the distance from one mother plant to the other is thirty inches, each runner may set two plants, layering the runners zig-zag or X fashion. While this is known as the double-hedge row, yet there are really three rows in one. The mother plants make the center row, and the runner plants the two outside rows. The width of a double-hedge itself should be about one foot. I mean one foot from one outside edge of the plants to the other outside edge.

If there is a vacancy follow the same course as with the single-hedge row.

The narrow matted row should be made by allowing each mother plant to make about six runners, and each one of these should set two plants. Spread the runners so that the plants will set about six inches apart. This will give each one plenty of room to develop itself. The wide matted row is not a desirable way to grow choice berries, but some growers insist upon following this system. The mother plants should be set thirty inches apart in the row, and the rows should be four feet apart. This gives plenty of room each way to spread runners so that the plants will not be crowded. Do not expcet to get fancy berries by the matted-row system.

Whichever of these systems is followed, after the desired number of young plants are layered to make up the row, the balance of the runners should be treated as weeds. Cut them off with roller runner-cutter or hoe or pinch them off. Some growers use a knife or shears for this work.

For choice fancy berries and lots of them, I prefer the double-hedge row, with plants well spread. Now just a few don'ts before closing:

Don't allow mother plants to make runners until they are well established and are making a vigorous growth.

Don't lose any time in layering the runners after the node begins to swell.

Don't start to grow the single-hedge row and get careless and let it run into a matted row.

Don't wait until your plants have matted thickly and then try to get single or double-hedge row.

Don't jerk runners off by the handful.

SCENE IN THE STRAWBERRY PATCH OF D. B. LACEY, MAYLENE, ALA.

This loosens the mother plant and interferes with its growth. The many runners pulling and tugging at her is strain enough without any jerking from the grower.

Don't forget to hoe between the runner plants and keep a dust mulch there the same as between the rows.

Don't blame anyone but yourself if your plants mat thickly and get the start of you.

Don't mind the backaches, but just keep on keeping on.

Planted Three Acres of Strawberries and Grew a Home

With acknowledgements to The South-West for photographs and story.

WHEN J. C. Wadley bought twenty acres of farm land near Stillwater, Okla., he planted three acres of strawberries between the trees of a young orchard by way of experiment, and then set to work growing cotton and oats to assure his family a living. This farmer had no previous experience in fruit culture, nor did he have any book theories about its possibilities, but he had strong arms, a willingness to work and a firm belief in the quality of his soil and advantages of the climate—he believed that berries could be grown on his land as easily as cotton if they were as carefully cultivated. But there could be no chances taken, and the field crops were put in to make the success of the farm doubly sure.

There was much to be done that first year, the improvements had to be made, the nursery stock purchased, and the only revenue was from the twelve or fifteen acres of cotton, the milk sold from a few cows, and the poultry and garden products. Mr. Wadley was anxious to build a comfortable home on his little farm plot, but

THE HOUSE THE STRAWBERRIES BUILT

it seemed that this desire would be long unfulfilled, if cotton alone was to be depended upon. He started in the second year courageously, however, cultivated his berries with hopeful enthusiasm, and went again to the cotton field.

Then came the first berry crop, and it was a dandy. The vines were red with fruit, and although a late frost cut the yield it improved the quality of the berries and stimulated the market. Mr. Wadley came out of his cotton field and called in his surprised neighbors to help him gather the most profitable crop that had ever been grown in that county. When the berries were marketed the cash was counted, and there proved to be $950, just enough to build a new home, and ever since the people of Stillwater have referred to the pretty two-story cottage on the Wadley farm as "the strawberry house". It is in plain view from the windows of the class rooms at the Oklahoma Agricultural College and is pointed out to the young men and women of that institution as an object lesson in profitable horticulture.

"Any man can make a good living and lay aside a little money by growing berries in Oklahoma," said Mr. Wadley. "When I bought this land it was covered with wild sunflowers. I put out my berries as a side crop, but the first yield showed me that there was more in them than in any other line of farming.

"Berry growing is light work and much more pleasant and entertaining than raising heavier crops, but it requires close attention. Experience is required to secure the best results, but a man can go into the business on a small scale and get this experience. It is the new knowledge that I gather each year that fits me for better effort, and that keeps me from getting discouraged. There are no problems in berry culture that can't be reasoned out by working among the plants. Nature has a way of suggesting what you should do, and when you should do it, but one has to keep in pretty close touch with nature all the while.

"My idea is that the hedge row is the best for planting strawberries. I place the rows three feet apart and the plants eighteen inches to two feet in the drill. This enables me to cultivate with a fine-tooth plow, and I turn the soil just enough to maintain a good mulch and keep the weeds down. The first year I plow my berries once every week until they are through bearing and until the weeds are through seeding. It takes rich soil to produce large strawberries, and I have learned that it is best to fertilize every year.

"Winter mulch is applied after the first freeze, when plant growth is stopped. I take the bedding and manure from the stables for this purpose, making sure that its consistency is about one-half straw so the vines will not be weighted down but can easily push their way through when they start in the spring. I mulch heavily in the middle of the rows and aim to let it barely cover the plant bed. I do not remove this litter, but permit it to remain on as a fertilizer, plowing it under in spring.

"We have no trouble here with insects, and I never have had to spray. The country is not favorable for vine diseases of any kind. The prevailing winds, our horticulturists tell us, discourage such pests.

"In gathering my fruit I pick the stem short, never touching the berry, and drop carefully into the bucket. The grading

BERRIES BETWEEN THE TREES AND BEES BETWEEN THE BERRIES

is done by the picker who rejects all unsound fruit on the vine. It doesn't pay to handle over-ripe or blighted berries; they degrade the better ones and bring nothing themselves. Our crop is gathered in boxes—every box heaping full—and taken to market in twenty-four-box crates. Stillwater buys all the berries I can raise; I have never shipped. The harvest season usually lasts eighteen days, and in that time the people of a town of that size can consume a lot of fruit."

Mr. Wadley finds time to look after his cotton and grain crops and to give ample attention to his orchard and apiary after the berry crop is out of the way. He believes in getting the full value from his land, for his berries are grown between the trees, and between the berry rows he has fourteen hives of bees, which last year gave him 550 pounds of first-class honey and seventeen strong colonies. These other interests fill out to make a complete year's work.

Work with Both Brains and Hands

SEVENTEEN years ago Vincent Anderson's "residence" was an Oklahoma "dug-out," his menu comprised corn-bread and molasses, and, altogether, he was at the very bottom round of the ladder, we learn from the Kansas City Star. Now Mr. Anderson has an orchard of 800 apple trees and 3,000 peach trees, and is worth $30,000.

"Thousands of Oklahoma and Indian Territory farmers have just as good soil as I have, but I guess they work too much with their hands and not enough with their heads," said Mr. Anderson recently. "Farming is fast becoming an exact science, and the sooner we all learn this the better it will be for us. I have 240 acres, situated about fourteen miles northwest of Oklahoma City, and my 800 apple trees and 3,000 peach trees net me about $3,000 per annum. This year I raised about 6,000 bushels of corn and a lot of cotton, that produced over $300 per

acre. This is my new kind which is storm proof and a great producer. I crossed seed from India and other foreign countries, and these seeds are worth their weight in gold.

"I have sixteen acres of alfalfa which I cut five times every year, besides I pasture it with a hundred head of hogs and about fifty head of cattle and horses. I find alfalfa a most valuable hay, and it would be almost impossible to get along without it.

"I think American farmers should be very happy and contented, but they are not always so, because we all have an idea that town life is more attractive, and many learn their mistake when it is too late. As for me, I prefer the farm, and I manage to make it pay by strict application and hard work. The farm is where one can find real pleasure and solid comfort."

Insects in the Strawberry Field

And How to Deal With Them

By R. L. Adams

WE present herewith the second instalment of Mr. Adams' informing article dealing with insects that attack the strawberry and the preventives and remedies that horticultural experience has suggested up to this time. We repeat what was said in introducing the first instalment, that the numbers of this magazine containing the series should be preserved for future reference by our readers. Remember, that many of the insects mentioned appear only in particular sections of the country, and that many others attack the strawberry very rarely.

The insects first to be considered this month are the

Insects That Attack the Crowns and Large Roots

1. The strawberry crown borer (*Tyloderma fragariae*) is of widespread importance, the damage being done by a small, white footless grub, one-fifth of an inch long, with a hard yellow head. He hatches from an egg laid at the base of a leaf on the crown by a snout beetle belonging to the curculio family. The beetles appear in June, are one-sixth inch in length, and brown in color, with indistinct markings of a darker shade. They cannot fly and so spread slowly. One egg is laid on the crown and the grub on hatching bores downward, tunnelling and excavating in all directions. The change to a pupa is made in one of the numerous passages, the adult beetle emerging any time from August to October. These beetles pass the winter hibernating in the fields.

Remedies—Being worse in old stawberry fields, the best method is to plow up old run-out ones in June or July after fruiting and plant some other crop, confining the berries to land that has not been used for that purpose for some time. The plants must be pulled before the beetles emerge and destroyed. Spraying and burning over will kill the adults.

2. The second crown borer or so-called "strawberry root borer" or crown miner (*Anarsia lineatella*) is a reddish-pink caterpillar, one-half inch long, covered with reddish dots from each of which a hair arises. This caterpillar works inside the crown and larger roots, making numerous passages.

The egg is laid on the crown in late July or August by a small, dark gray moth with a wing expanse of one-half inch, and marked with brownish-black spots on the fore-wings. The caterpillars feed throughout the summer and then hibernate in the channels. Early in July they change to reddish brown pupæ in rubbish or decaying leaves, appearing a couple of weeks later as the adult moths.

Remedies—Dusting with lime or wood ashes is said to be helpful, but there is no practical method to get rid of them except to pull and burn the bed while the caterpillars are in the crowns, resetting the bed with clean stock.

Insects That Attack the Leaves

1. The leaf roller (*Phoxoptera comptana*) is probably the worst insect attacking the foliage. The damage is done by brownish caterpillars which roll the leaves into cases, fasten them with silken threads and feed on the pulpy part of the leaf inside the shelter thus formed. This causes a withering and part discoloration of the foliage.

When full grown the caterpillars are one-third inch long and vary in color from brownish to greenish. They are sparsely clothed with hair and have a brownish yellow head.

The eggs hatch in June, after having been laid a few days, and the caterpillars become mature later the same month, appearing as adult moths in July, when the eggs are laid for a second brood which appears the same season.

The second brood attain their growth by the last of September and enter into the pupa stage, remaining thus until the following spring, when they emerge as delicate, reddish-brown moths, marked with white streaks and dots, and having a wing expanse of about one-half inch. These lay the eggs for the early brood. This insect occurs over nearly all the United States and there are three and perhaps four broods in the South.

Remedies—Spraying with hellebore, Paris green or disparene is a preventive. If the caterpillars have curled the leaves they are beyond reach of poison, but a good spraying will help the second brood. Another method is to mow the leaves and burn them, or the plantation may be plowed under and replanted with clean stock.

2. The smeared dagger (*Apatela oblinila*) has similar habits and yields to the same treatment as the leaf roller. Instead of tying one leaf they fasten three or four terminal ones together.

The moth has plain gray forewings marked with a black criss-cross line and white hind wings.

The larva is a beauty, one and one-fourth inch long, deep velvet black with bright red tubercles, from each of which rises a tuft of hair, those on the back red and those beneath yellow. There are two rows of yellow spots down the back and a number of white dots placed irregularly. Once seen it is not likely to be forgotten.

3. Another leaf roller is *Eccopsis permundana* which binds several leaves and berries together, eating the whole ball.

The moth has variable yellow-brown forewings with oblique cross marks and light brown hind wings.

The larva is green with a black head and is one-half inch long when full grown. It feeds until the last of June when it pupates, appearing in a few days as the perfect moth.

Remedies—Dust the plants with lime or ashes or spray with stomach poisons.

4. Cornell University has discovered another leaf-roller which has been called the oblique banded strawberry-leaf roller (*Cacaecia obsoletana*) which is olive green when mature, while the moth is various shades of brown, marked with darker wavy lines and a broad band, broken in the middle.

The life-history is similar to that of the first leaf roller and it will succumb to the same treatment.

5. Young plantations especially are subject to the attacks of the strawberry slug or sawfly (*Emphylus maculatus*), a member of the Hymenoptera, and not Lepidoptera, the order to which the previous four belong.

The insect causing the trouble in this case is a four-winged black sawfly with brown legs and two rows of white spots

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent

A Free Trial Package is Mailed to Everyone Who Writes

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powdrpaint. It comes to the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 613 North St., Adams, N. Y., and he will send you a free trial package; also color card and full information showing how you can save a good many dollars. Write to-day.

down the abdomen, which feeds, in the larval stage, on the leaves, eating small circular holes and often completely riddling them.

There probably are two broods a year, the first maturing in July to lay the eggs for a second. The white eggs are inserted in the stems of the leaves and hatch in about two weeks.

The slugs or worms attain their growth in five or six weeks and are three-fourths inch long, pale green in color, with a semi-transparent skin and yellowish beneath.

The second brood reaches the chrysalis stage the same year and then passes the winter as pupæ in cocoons just under the surface of the ground.

Remedies—Spraying with hellebore or some stomach poison. Burning over is helpful.

6. There is another sawfly (*Monostegia ignota*) which attacks the strawberry, but it is similar in habits and appearance.

7. The spotted paria (*Paria aterrima*) is a small spotted, pale, active beetle, three-tenths inch long which riddles the leaves in June. The grubs live on the roots and all forms are easily recognized.

Remedies—Spray the foliage with a stomach poison to kill the adults.

8. The striped flea beetle (*Phyllostreta vittata*) is a small, active, jumping beetle, one-tenth inch long crossed with wavy yellow lines.

They feed on the foliage as adults and on the roots in the grub stage, the latter being one-third inch long, white, with head and tip of abdomen brown.

The remedy is the same as for the spotted paria.

9. A number of varieties of cut-worms (*Agrostis*) attack the strawberry, cutting the plant off close to the ground while it is young. The perpetrators of the deed are the larvae of several moths of a grayish or ash color.

The cut-worms hide just under the surface of the soil during the day, coming out at night to feed. They are so common that no extended description seems necessary.

Remedies—If the planted area is small they can be killed by the use of poisoned baits made of bran sweetened with molasses and poisoned with Paris green. Clover cut and sprayed with a stomach poison will attract them, or they may be caught at night while at work. On large areas late fall plowing is advisable.

10. Species of *Aleyrodes*, white fly or mealy wing, as it is variously called, sometimes attack the foliage. When numerous the adults rise in clouds like snow at the slightest disturbance. There are two, possibly three, broods a year.

The young hatch from eggs laid on the lower surface of the leaf and resemble the larvae of the scale insects, being covered with a white, flour-like substance. They suck the juices of the plant, dwarfing and causing it to curl up, thus curtailing the crop.

Remedies—As these are sucking insects, Paris green or other stomach poisons are of no use, and resort must be had to some form of contact poison such as kerosene emulsion, whale-oil soap or the like. This must hit the insect to kill and needs to be repeated as often as the live insects appear, touching the under side of the leaf. Burning the plantation will take care of them.

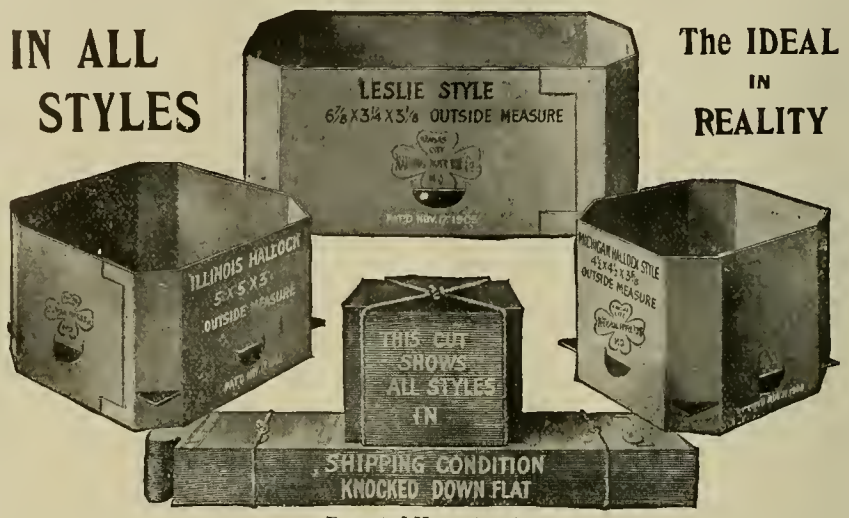
(Continued in July Number.)

THE UNSURPASSED

National Berry Boxes

IN ALL STYLES

The IDEAL IN REALITY



Patented Nov. 17. 1903.

A SANITARY FRUIT-PRESERVING PACKAGE

Made of tough, smooth paper stock, coated on both sides with best paraffine wax. **Three years of practical use** have made these boxes the **favorite of all** who have seen and used **them.**

They are stronger than the wooden boxes, as each box will stand up under eighty pounds of pressure without being crushed. **This is more than any other box will stand.** They will take the **lowest possible freight rate,** being shipped in the **flat** condition.

All testimonials we furnish are **unsolicited.**

All samples we are sending are folded up and packed in a box, thus enabling those not familiar with the box to fold and interlock box properly to give the desired result.

Sales during 1906 in **31 states and some foreign countries,** and **1,400 new names** were added to our already large list of customers. **Communication with 47 States.**

NONE SO GOOD AS THE BEST

NATIONAL PAPER BOX COMPANY

KANSAS CITY, MO.

Folded up sample and circular sent on receipt of ten cents.

Patentee will sell his rights or organize a special company. Demands are too large for present arrangements. All who are interested, write above compaoy.

CANADIAN members of The Strawberry family are advised that owing to a new rule agreed upon by and between the postmasters-general of the United States and the Dominion of Canada, increased postage must hereafter be paid upon all second-class mail matter going from the United States into Canada, and stamps affixed to each package. The additional expense of sending The Strawberry to Canada will be at least 15 cents a year. Therefore from this time on all Canadian subscriptions to this magazine will be $1.15. All Canadian subscriptions now in force will be fulfilled, of course, at our expense. As this rule applies to all of the publications contained in clubbing offers heretofore offered by the Strawberry, we are compelled to withdraw all clubbing offers so made, so far as Canadian subscriptions are concerned. All of our friends throughout the Dominion who are working for additional subscribers will please note this enforced change of rates.

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter VIII—In which is shown the Value of Attractive Advertising and Effective Selling Methods

IN the last preceding instalment you will note that I had finished mulching my berries before Christmas, and just as soon as the holidays were over I put one team to hauling manure and spreading it over the ground which was to be set to plants the following spring, and every foot of the ground received a liberal dressing of this best of all fertilizer. The ground had been broken up and sowed to rye in the early days of October. This with the manure made an ideal winter covering for the soil. The fact that everything on the farm was in such good condition made me impatient for spring; I was so anxious to see what my berry plants would do. If thorough cultivation throughout the entire growing season, and proper mating of varieties had anything to do with getting a big crop of berries I certainly would get more crates to the acre than ever I had grown before.

One block of about two acres was set to Warfields, Michel's Early, and Lovetts. The first row was set to Michel's Early, then three rows of Warfields, followed by one row of Lovetts, and so on until the entire two acres were set. The balance of my fruiting fields were principally Clydes, Gandys and Marshalls. In my experimental bed were about thirty-five varieties, many of which I never had seen fruit. In this experimental bed I was continuing my experiments to determine more definitely the value of exchange of pollen with bisexuals. This little plot made me wish for another fruiting season more than all the other fruiting beds combined.

When spring finally came we started uncovering the plants; and fine ones they were, too. In fact, they double-discounted any plants I ever had grown, and they made me more enthusiastic than ever. Dave (my young foreman) carried a wider smile than did I, and he had a right to feel happy, because he had a hand in growing those very plants. It seemed to me that they were greener and fresher looking than they were in the fall when the mulching was put on. In about ten days after the mulching had been removed from the plants, Dave and I went out to see them, and the beautiful sight would actually cure the blues.

I had a car-load of box material all made up into berry boxes. Dave made them during the winter at the rate of 4,000 quart boxes a day.

"If these plants produce berries in accordance with their appearance we will need more boxes," I said to Dave.

"Yes, they do promise a great crop that is certain; but don't you think it will be best to defer ordering until the crop is more sure?" was Dave's reply.

"Possibly that is the best thing to do, and I am glad you feel free to make suggestions. That is just what a foreman should do."

"Foreman! you don't mean to tell me that I am to be your foreman, do you?" Dave exclaimed.

"Why yes, boy; you have been my foreman ever since last August; but I never told you, as I thought best to wait to see if you were of the mettle of a foreman, and now I am convinced that you are entitled to the honor."

It was actually worth a quarter to see the look of deep appreciation in that boy's face. A hat full of silver dollars could not have pleased him more. In fact, a promotion of this kind should appeal to any young man as being of greater value than money.

Although the season was no more favorable than the average, the plants grew to enormous size. The manure I had spread between the rows of the old fruiting bed had leached into the soil during the winter rains and snow, and the plants were surely making use of it. The other plants which were to give their first crop had been set on exceedingly well-prepared soil. A light coat of manure had been turned under, then sowed to rye, the fall previous to setting the plants. This ground was again covered with manure in the winter, which was turned under and the manure and rye well mixed with the soil before setting the plants in the spring. One or two light frosts came during the blooming season, but the few blooms killed did not affect the yield, as the vines carried all the berries they possibly could mature.

The Michel's Early gave the first picking, and in a few days the Warfields and Lovetts were showing red spots on the outer edges of the row. By the time these three varieties were at their best, the Clydes came in with a big donation of extra-large berries.

The dealers who handled my berries the year before had engaged them again for this season at 15 cents per quart, or two quarts for 25 cents, less 15 per cent commission and express charges. This price was for the fancy stock. The second grade mostly was sold at the farm. I put big ads in the home papers and prospective buyers would come from near-by towns, some coming a distance of twenty miles, and they would go home with full cases strapped on to the hind part of their buggies. Some days there were so many of these buyers that several wagons would be waiting for their turn to be served. Several days before the largest picking I would notify each dealer to take orders among their customers for canning-berries at $2.00 per twenty-four-quart crates, and when these big days came, all of the second-grade fruit was engaged as well as the fancy berries.

During the entire season I received only one or two complaints about high prices. "Standing pat" on prices the year before had convinced the dealers that it was useless to bother me about any complaint their customers might make. They would tell

SOME FIRSTS AND SOME SECONDS

their trade that Beatty named the price, and that they had no control over it whatever.

"We think his berries are worth all he asks for them, for they are nicely and honestly packed in full quart boxes." This little explanation satisfied their customers, and the demand for Beatty's celebrated strawberries grew far beyond the supply.

The Dennison Hotel at Indianapolis contracted for enough fancy berries to supply its guests. T. J. Cullen was at that time manager of this great hotel. From there Mr. Cullen went to Cincinnati, Ohio, and took charge of the Burnett house, and my berries were ordered for the table of that hotel also. This was a distance of 225 miles from the farm. The distance and transfers made it rather difficult to get the berries there in good condition, except such good shippers as Gandy.

The crop of berries and the price obtained for them this season were both perfectly satisfactory, and I felt that my plan of marketing was now a perfect success. The extra-big crop of berries I harvested from Warfields convinced me beyond a doubt that my method of mating pistillates with two bisexuals was just the thing. The experimental bed was a great instructor. Here where different varieties of bisexuals were set side by side, I could see a great gain in quantity and quality of fruit. From this experimental bed I would fill small tomato baskets with the choicest berries, and then put a wreath of leaves around the baskets. These we used for show windows and advertising purposes. Another good way I had for advertising was to furnish a four-paged circular filled full of valuable recipes for preparing Beatty's celebrated berries, and of course these recipes were a total failure unless my berries were used! Fancy labels were on each crate of fancy berries, and all stationery used was of the very best and neatly printed. All of the good dealers expressed regrets when the berries were gone, and everyone engaged them for the next year.

(Continued in July Number.)

Helpful Hints From Our Folks

The First Contribution

By R. C. Sabin

YOUR idea of having a department called "Helpful Hints From Our Folks" is surely a good one. The great drawback to strawberry growing is the great amount of hand labor it requires. Any tool that will reduce or expedite that labor is a boon to strawberry folk. Now, to give the new department a send off, I wish to tell you about narrowing up the rows after the picking season is over and the old mulching burned.

Take a sharp common disc and remove some of the outer discs so as not to throw soil on the rows on each side. Now spread the disc so as to leave the row just as wide as you like. With a steady team you can cut a row down to as fine a line as possible. The disc throws the soil away from both sides and does not disturb what is left of the row. A bar-shear plow is sure to loosen up the row too much when cutting it narrow. Of course, the disc can not be used to advantage unless there is room to turn at the ends.

Ludington, Mich.

OUR thanks are due Mr. Sabin for this initial contribution to what we hope is to become an important department in The Strawberry. The very best aids the strawberry grower can receive will come out of the practical experiences of his fellow-growers. What may seem very simple to you may prove of infinite help to someone else if you will tell him about it. Tell him just how to do it, and when to do it, and why is should be done. The thousands of readers of The Strawberry who are immediately interested in the cultivation of the strawberry will render the world a very large service if they will give it the benefit of their experiences.

AMONG the great associations having for their object the up-building of horticultural interests in the United States must be accounted as one of the leaders the American Association of Nurserymen, and Michigan may feel especially pleased that the annual meeting of that association is to be held within her boundaries. Detroit has been fixed upon as the place and the time June 12 to 14 next. The program prepared for the event, both as it relates to questions of a technical or business nature having to do with nursery and fruit-growing interests, and to the events of interest and pleasure arranged by the entertainment committee, is said to be the most attractive in the entire history of the association. All who can do so should attend this convention. It will be of large profit to the fruit-grower and nurseryman.

1 CENT IS ALL IT WILL COST YOU to write for our big **FREE BICYCLE** catalogue showing the most complete line of high-grade **BICYCLES, TIRES and SUNDRIES at PRICES BELOW** any other manufacturer or dealer in the world.

DO NOT BUY A BICYCLE from *anyone*, at *any price*, or on *any kind of terms*, until you have received our complete **Free Catalogues** illustrating and describing every kind of high-grade and low-grade bicycles, old patterns and latest models, and learn of our remarkable **LOW PRICES** and **wonderful new offers** made possible by selling from factory direct to rider with no middlemen's profits.

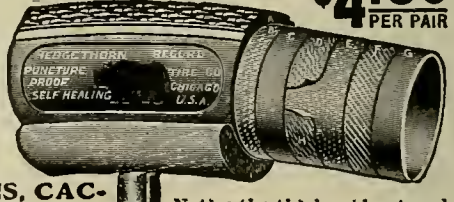
WE SHIP ON APPROVAL *without a cent deposit*, **Pay the Freight** and allow **10 Days Free Trial** and make other liberal terms which no other house in the world will do. You will learn everything and get much valuable information by simply writing us a postal.

We need a ***Rider Agent*** in every town and can offer an opportunity to make money to suitable young men who apply at once.

$8.50 PUNCTURE-PROOF TIRES ONLY $4.80 PER PAIR

Regular Price $8.50 per pair. ***To Introduce We Will Sell You a Sample Pair for Only*** **$4.80** (CASH WITH ORDER $4.55)

NAILS, TACKS OR GLASS WON'T LET OUT THE AIR



NO MORE TROUBLE FROM PUNCTURES.

Result of 15 years experience in tire making. **No danger from THORNS, CACTUS, PINS, NAILS, TACKS or GLASS.** Serious punctures, like intentional knife cuts, can be vulcanized like any other tire.

Two Hundred Thousand pairs now in actual use. Over Seventy-five Thousand pairs sold last year.

Notice the thick rubber tread "A" and puncture strips "B" and "D," also rim strip "H" to prevent rim cutting. This tire will outlast any other make—SOFT, ELASTIC and EASY RIDING.

DESCRIPTION: Made in all sizes. It is lively and easy riding, very durable and lined inside with a special quality of rubber, which never becomes porous and which closes up small punctures without allowing the air to escape. We have hundreds of letters from satisfied customers stating that their tires have only been pumped up once or twice in a whole season. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially prepared fabric on the tread. That "Holding Back" sensation commonly felt when riding on asphalt or soft roads is overcome by the patent "Basket Weave" tread which prevents all air from being squeezed out between the tire and the road thus overcoming all suction. The regular price of these tires is $8.50 per pair, but for advertising purposes we are making a special factory price to the rider of only $4.80 per pair. All orders shipped same day letter is received. We ship C.O.D. on approval. You do not pay a cent until you have examined and found them strictly as represented.

We will allow a **cash discount** of 5 per cent (thereby making the price **$4.55** per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. We will also send one nickel plated brass hand pump and two Sampson metal puncture closers on full paid orders (these metal puncture closers to be used in case of intentional knife cuts or heavy gashes). Tires to be returned at **OUR** expense if for any reason they are not satisfactory on examination.

We are perfectly reliable and money sent to us is as safe as in a bank. Ask your Postmaster, Banker, Express or Freight Agent or the Editor of this paper about us. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a small trial order at once, hence this remarkable tire offer.

COASTER-BRAKES, **built-up-wheels, saddles, pedals, parts and repairs, and** everything in the bicycle line are sold by us at half the usual prices charged by dealers and repair men. Write for our big **SUNDRY** catalogue.

DO NOT WAIT but write us a postal today. **DO NOT THINK OF BUYING** a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it **NOW.**

MEAD CYCLE COMPANY, Dept. "J L" CHICAGO, ILL.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

STRAWBERRY-RAISING is quite irresistible to one who once has felt its charm, and we are glad to know that there are many members of this school who are so full of the subject that they "can't stay away," even though they feel they ought to be somewhere else than in the strawberry patch. Here is a sample letter from one member who raises strawberries in New Hampshire:

I'm a fool for taking The Strawberry, for it and your catalogue will make me uncomfortable because I haven't time to put into strawberries; but I just can't let it alone.

I grew at the rate of 5,500 quarts to an acre a few years ago. This is not large for you, but good for this section. Your catalogue did it.

Well, we plead guilty to the soft impeachment, and are sure that with the passing years our friend will be glad that he was thus "goaded on" to his own edification. The finest and sweetest old men we meet are the men who thus have had some touch of the soil in their life-experience, and we usually find that it is the strawberry patch that lingers longest and most delightfully among those tender memories of the days gone by. Don't give up your strawberry patch! It is the most satisfying vocation or avocation you will find, and old age will be all the brighter and happier for the hours spent in cultivating the fruit and watching the luscious berries bud and grow and ripen into delicious and health-giving beauty.

Miss I. C., Loveland, Ohio. What shall I do to stop black ants working on my fruiting bed? They make little dirt mounds around each plant and when I brush them away the dirt seems to stick to the plant and stops growth. I tried Bordeaux and Paris green before the blossoms opened, then flower sulphu , and lastly tobacco crushed up, still the bad work increases.

2. Shall I cut off runners that start in a fruiting bed while the fruit is growing?

3. Can I cultivate my berries after all the blossoms have fallen off and the fruit growing?

4. If a plant seems overloaded with young berries shall I cut part of them off? My Senator Dunlaps have so many blossoms they look like they could not make large berries.

The black ant is very hard to get rid of. Thorough and clean cultivation has a tendency to drive them away, as the ants love to work in firm, solid soil. However, it is not the ants which are doing the injury to your plants. The fact that they are present is evidence that there are root lice working upon the roots of your plants. The ant's mission is to carry the lice from the roots of one plant to another, and while the lice suck the juices from the roots and tender parts of the plant, the ants are getting their reward by taking up the honey-like substance which comes from the lice. Neither lice nor ants may be destroyed by Paris green or Bordeaux mixture. These lice have long beaks which penetrate into the tender parts of the plant, through which they suck the juices. There is really no practical way to destroy these enemies, as they are a sucking insect, and can be killed only by spray material that comes in direct contact with them. Coal-oil emulsion, or whale-oil soap will destroy them, but the trouble is, the lice work on the under side of the leaf, hid away in the crowns in such a manner that it is almost impossible to reach them with these spray materials. Finely ground tobacco dust sprinkled around the plants is quite effective; also clean and thorough cultivation, and burning over the bed after fruiting season. All these have a tendency to make it disagreeable for these pests.

2. It is unnecessary to sever the runners from plants which are to fruit.

3. The cultivating of the fruiting bed may be begun as soon as all danger of frost is over, and continued through the entire fruiting season; but you should not cultivate while the plants are in bloom unless the soil is moist enough to prevent any dust from flying, which would have some effect on the pollen.

4. Removing some of the berries from overloaded plants, will make the berries which are left grow somewhat larger, but it is impracticable and unprofitable to do so. The Dunlap is a very productive variety, and is capable of maturing all of its berries to good size.

C. E. V. W., Alpena, Mich. After reading the different experiences in The Strawberry I have concluded to use nitrate of soda on my strawberries but have been told that it has a tendency to make the berries soft. Would you kindly advise me through The Strawberry if this is true?

Nitrate of soda when used too freely tends to make the fruit soft, but when used in proper quantities stimulates growth and is altogether a benefit to plants where there is a deficiency of nitrogen in the soil. An application of forty pounds of nitrate of soda, scattered along the rows of plants just as growth starts in the spring, and the second application of the same amount, made in the same way just before the buds open into bloom, has been found to be of very high value in the production of a crop of strawberries. Be very careful that the nitrate of soda is not allowed to come in contact with the foliage of your plants.

A. H., Dennis, Mass. Will strawberries ripen well on a north slope, or will they rot?

2. I am planning to grow some of my strawberries in the hill system this year and next year let them grow a few runners. Is this right?

3. Will eighteen inches apart in the row be too far apart or not far enough? My rows are three feet wide.

It is advisable to set late varieties on a northern slope. This retards the ripening somewhat, making the berries later than they would be if grown on level ground. Berries will not mildew or rot on a northern slope any quicker than they would on the level.

2. You can grow your plants in hills the first season, then after the first crop is picked, mow off the foliage preparing for the second crop Allow each hill to make several runners, layering them around the mother plant. This is what we call the cluster hill.

3. Eighteen inches will not be too far apart to set the plants for the system you intend to follow.

W. W., Sunrise, Minn. Is there enough humus in a heavy blue grass sod well manured and planted to potatoes to make a crop of large strawberries?

2. How would you arrange to apply Bordeaux mixture every week on a very small patch of strawberries?

3. Is cultivation by hand with hoe and rake as good as to cultivate with a horse?

4. When you cultivate by hand how close may the rows be made when you want to economize space?

Yes; this piece should contain an abundance of humus and be in ideal condition for a big crop of strawberries.

2. You might use an old broom. Dip it into the Bordeaux and apply it in that way; or, if you have enough plants to justify the investment, a knapsack sprayer is a good thing to have on hand. The sprayer is better than a broom, because it puts the poison on in a fine spray. You might join your neighbors in the purchase of a sprayer.

3. Some very large crops of berries have been grown where hand-cultivation

has been followed. Where soil is loose the hoe will do as well as cultivating with a horse.

4. Rows may be as closely placed as two feet. All that is necessary is to have sufficient space to walk while hoeing and picking berries.

C. W. W., Crookston, Minn. Can you give any remedy for cut worms?

Prof. L. H. Bailey offers the following remedies for the cut worm: "Encircle the stem of the plant with heavy paper or tin. Arsenites sprinkled upon small bunches of fresh grass or clover, which are scattered at short intervals about the garden towards evening. They will often collect under boards or blocks. Arsenites mixed with shorts or bran, and placed about the plants. Make two or three deep holes by the side of the plant with a pointed stick; the worms will fall in and cannot escape. Dig them out. Plough infested land in fall to give birds a chance to find the worms. Kainit or muriate of potash applied liberally as a fertilizer has been advised."

F. B. L , Saxtons River, Vt. Kindly tell me if there is any trouble with the enclosed strawherry leaf other than what is caused by the cold weather of winter. Quite a good many on my old bed have dead leaves and leaves like this. If it is any insect that does it should I destroy the plants to keep them from the new ones you sent me o will the Bordeaux mixture cure it?

The leaves enclosed in your letter are affected with leaf spot, called rust. Spraying with Bordeaux mixture will prevent the spread of it upon healthy leaves, but it will not cure the leaves which are already affected. It will not be necessary for you to remove the affected leaves, as in time these will dry up and disappear. The Bordeaux mixture should be sprayed over the plants about every ten days until the buds open.

W. J. K., Maclay, Ore. Is it detrimental to wait with transplanting strawberry plants until blossoms form in propagating bed?

2. What is a smutty-like affection on blossom buds causing them to rot?

Just as soon as strawberry plants begin to bloom, the roots turn dark and become somewhat wiry; much of the vitality of the root going into the foliage; and for this reason transplanting at that stage of development is not as successful as when the plants are entirely dormant.

2. The smut is a fungous affection. If the leaves are covered with a whitish, moldy substance, plants are affected with what is called slime mold. Spraying with Bordeaux mixture will prevent this, as well as all other fungous diseases. Make the first spraying when growth starts in the spring; a second in a week or ten days, and a third just before buds burst into bloom.

Throw Old-Style Harrows on the Junk Pile!

Naylor 2-in-1 Harrow Does the Work Better in Half the Time

What's the use of going over your fields **twice** when **once over** with my Combination Spring and Spike Tooth Harrow will do the work and do it **better?** This **2-in-1 Harrow** makes a perfect seed-bed in half the time and with half the labor of man and team required with old-style harrows and drags. The 2-in-1 **turns up the earth** and **pulverizes it AT THE SAME OPERATION.** The little picture at the bottom tells part of the story. My Catalogue tells more of it, and hundreds of farmers all over the country are telling the rest of the story. You ought to hear them praise it. **My Harrow saves so much time that it pays for itself in 7 days' use.** It's a light puller. It makes as fine a seed-bed as you ever saw. If you order one and it doesn't "make good," I'll refund every cent you paid me. **Special Confidential Price** to first man in a locality who writes. **Catalog FREE.**

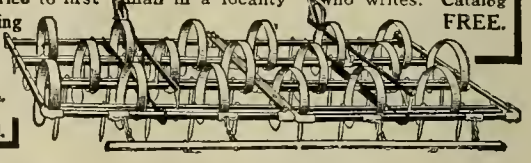
Naylor's Flint-Coated Rubber Roofing

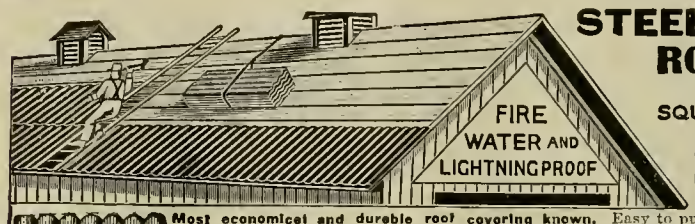
$1.45 and up per Square of 108 Sq.Feet.

3 different weights to select from. For all kinds of farm buildings. Steep or flat roofs. Guaranteed. Nails and cement with every roll. Samples **free.**

J. R. Naylor, NAYLOR MFG. CO.

4 Hillgrove Ave. La Grange, Ill.





STEEL ROOFING

PER 100 SQUARE FEET

$1.50

Most economical and durable roof covering known. Easy to put on; requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for ceiling and siding. Fire-proof and water-proof. Cheaper and more lasting than shingles. Will not taint rain-water. Makes your building cooler in summer and warmer in winter. Absolutely perfect, brand new. **$1.50** is our price for our No. 15 grade of Flat Semi-Hardened steel roofing or siding, each sheet 24 ins. wide and 24 ins. long. Our price on the corrugated, like illustration, sheets 22 ins. wide x 24 ins. long, **$1.75.** At 25c per square additional we will furnish sheets 6 and 8 feet long. Steel pressed brick siding, **per square, $2.00.** Fine Steel Beaded Ceiling, **per square, $2.00.** Can also furnish standing seam or "V" crimped Roofing.

WE PAY THE FREIGHT TO ALL POINTS EAST OF COLORADO

except Okla., Tex. and Ind. Ter. Quotations to other points on application

Satisfaction guaranteed or money refunded. We will send this roofing to any one answering this ad C. O. D., with privilege of examination if you will send us 25% of the amount of your order in cash; balance to be paid after material reaches your Station. If not found as represented, you do not have to take the shipment and we will cheerfully refund your deposit. **Ask for Catalog No. WE 733.** Lowest prices on Roofing, Eave Trough, Wire, Pipe, Fencing, Plumbings, Doors, Household Goods and everything needed on the Farm or in the Home. We buy our goods at sheriff's and receiver's sales.

CHICAGO HOUSE WRECKING CO., 35TH AND IRON STS., CHICAGO

B. H. G., Santa Cruz, Calif. Am sending you specimens of a small black beetle that is on my plants. What are they, and what shall I do to get rid of them? There also is a caterpillar at work on the plants.

The insects you send us belong to the beetle family, and are leaf-chewing insects. These can be destroyed by spraying with Paris green. Use at least ten ounces of Paris green; sprinkle it over two pounds of lime. Pour over this two gallons of hot water, and when thoroughly slaked add enough water to make forty gallons. This will also destroy caterpillars, or any other leaf-chewing insects.

W. R. G., Trout Creek, Mont. I enclose three insects which I find in my strawberry patch in great numbers, and they are eating the leaves. Please tell me what they are and the remedy for them. I am giving them a taste of Bordeaux and Paris green.

The insects which you sent us were badly crushed, but after placing them under a magnifying glass, we feel safe in saying that they belong to the beetle family. They resemble the flea-beetle, which does not do a great deal of damage. When I was located in Indiana, these beetles attacked my plants in large numbers, but in a few days they disappeared. They are a leaf-chewing insect, and may be destroyed with Paris green. Ten ounces of Paris green poured over two pounds of lump lime, and over this pour two gallons of hot water. When thoroughly slaked, add enough water to make forty gallons, and spray the plants thoroughly.

ARE YOU LOOKING FOR A HOME?

No farmer should think of buying land or a home until he has seen a copy of The Farm and Real Estate Journal. It has the largest list of farms, city property and stocks of goods advertised in it of any paper published and reaches 50,000 readers each issue, 85 per cent of which are farmers, and is one of the best advertising mediums in Iowa. Advertising rates 15 cents per agate line. Send 75 cents and we will mail you The Journal for one year. Or for 10 cents in silver or stamps we will send it for two months on trial.

Farm and Real Estate Journal

TRAER, IOWA

N. J., Sawyer, Wis. What do you think about the patent folding berry box? Is it any better than the common one which is put together with staples?

2. Can more bushels of berries be grown from the acre, in the single-hedge row than in the matted row? How many more?

The question of package is largely a matter of taste, convenience or economy, the situation of each grower determining

his preference. The extensive grower who owns a wire-stapler is quite likely to prefer to buy his materials and make up his own boxes and perhaps his crates. This is good work for stormy winter days. The plan for the new grower to follow is to send for catalogues, samples, etc., and solve his own problem in the way best suited to his needs.

2. It is quite likely that, taken on the average, more berries may be grown on an acre in the matted row than on the same space set in the single-hedge row. But little fancy fruit is to be expected from the matted row.

C. H. S., Ottawa, Kans. I have one-fourth acre of plants set in the spring of 1906. Kept the blossoms picked off, and trained in single-hedge row. The warm weather in March of this year forced an early bloom and the freezing weather of April killed two-thirds of the bloom—a great many of them before they were half open. Now I want to know if I may let them bear what fruit they may, then mow and burn the patch and use it for propagating plants for next spring's setting?

2. If so, how should I train the runners, i. e., is it necessary to remove part of runners in a propagating bed?

3. Will a bed like the above be all right to use for the third crop of fruit?

4. Would it be best to confine onesself to a single variety or use more than one variety in attempting to raise three or four acres of strawberries for market?

We would advise you to allow the plants to fruit all they will this year, and after the fruit is picked, mow the vines off and burn the foliage over, and then proceed to prepare the bed for a second crop. But we would not advise you to take any plants from this bed, as it is always best to get plants from newly set plants. We think it is quite likely that you will get a better crop of berries than you now anticipate, as many of the later buds will mature into berries, that otherwise would not have done so if all of the bloom had been saved from the frost.

2. It is not necessary to remove any of the runners in a propagating bed, except the weaker ones, and all laterals. By laterals we mean the weak runners that start from the main cord between the mother plant and the runner plant.

3. When a bed of plants fruits lightly, the third crop generally is profitable.

4. It always is best to use several varieties, at least one variety for each season. We recommend this for two reasons. First, because you have berries through a longer season, and second, because if the bloom of one variety should be destroyed by frost, there remains a chance for the other varieties to escape.

F. S., Walworth, Neb. Two years ago I set out six hundred strawberries, and would have had a fine crop last year but for an insect which my neighbors call rose slugs. They made their appearance about the time berries began to ripen and ate berries, vines and all. I was afraid to use poisons, as Paris green, on account of affecting the fruit. If you know of a remedy for these rose slugs will you please advise.

The remedy for rose slugs is arsenate of lead, or disparene. It is unsafe to use Paris green in sufficient strength to kill the rose slug. In fact, the rose slug seems not to be affected by Paris green. Of course, no arsenates must be used when fruit is on the vines.

A. H. D., Reidsville, N. C. I wish to ask for a little information of you, in regard to some kind of insect that is destroying my berry vines. These insects injured them very much last summer and fall; in fact they killed some of my vines; and this spring they have spread most all over my patch. Unelss I can learn how to destroy them I shall have to quit the berry business. These wevils or bugs seem to do their feeding at night, as I've never been able to see them on the plants. They puncture or eat the leaves full of small holes, and keep the plants weak and small. Many of the plants will not fruit at all because of their weakened condition.

From the description you have given us of the insect which is causing you so much trouble, we are led to believe that it is the saw-fly. This is a little greenish worm that works on the under side of the leaf. It does a great deal of this work during the cool of the day and evenings. It is very seldom found working upon the leaf where the sun strikes it. It always hunts the shady part of the leaf. At first sight spray with Paris green, using about eight ounces. Put this on two pounds of lime, pouring over it about two gallons of water, and when the lime is slaking it will absorb the acid in the Paris green, which will prevent any injury to the foliage. After the lime and Paris green are thoroughly slaked and mixed together, add enough water to make about forty gallons. One spraying generally will destroy these insects.

I. E., La Luz, N. M. I enclose herewith two strawberry leaves, which are turning yellow, and wish to ascertain the cause, and remedy. This is the Senator Dunlap variety, and plants were set out one year ago last March, and have been well cared for, having had water every nine days during berry season. They are on medium-rich land—clay soil. We are just through picking for this season. There was a great quantity of bloom but two-thirds of the berries did not mature. There was no other varieties of strawberries near this bed of Senator Dunlap.

The leaves you enclose appear to be affected by some fungous disease. We advise you to spray them with Bordeaux mixture. While this will not cure the plants already affected, it will prevent it from spreading over the healthy plants. Sometimes a lack of potash in the soil will cause the foliage to turn yellow, but in your case the trouble is due to a fungous disease. Prompt action will prevent its spread over the healthy plants in the field.

CLASSIFIED ADVERTISING COLUMN

AGENTS WANTED, CHANCES, ETC.

WE want one lady or gentleman to take orders and deliver for us, rapid seller, highest quality goods, sales in almost every house. Best of pay and no money required to carry on the work. We will send a proposition as soon as we hear from you, also sample pair of 6-inch shears for 28 cents—stamps or silver. Write at once. United Shear Co., Westboro, Mass. tf

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

DAIRY CATTLE

HOLSTEIN BULL CALF for sale—one month old—for $25.00. Pure bred, registered and from the best strain of the most profitable dairy cattle known. Dr. Haines Three Rivers, Mich.

FARMS AND LANDS FOR SALE

STRAWBERRY FARMS and Country Homes in the Tidewater section of Virginia. Some beautiful waterfront properties. Wilcox and Goodenow, Norfolk, Virginia. 7

POULTRY, EGGS, ETC.

15 ROSE COMB Brown Leghorn Eggs, 75 cents. Henry Tiedemann, Hammond, Ind. 6

FOWLS, $1.50; Eggs, $1.00—White Leghorns, Buff Rocks, fine large Barred Rocks, good color Buff Cochins. H. S. Arnold Lanark, Ill. 6

FOR SALE. White Leghorn, White Rock and Pekin Duck eggs for hatching, Collie Pups, Homer Pigeons. If you want something elegant and reasonable write The Michaelis Poultry Farm, Marinette, Wis. 6

PROPRIETARY ARTICLES

LETTUCE CREAM, oldest and best for the skin. Wonderful for sunburn. Sample free. Lettuce Cream Soap with coupon for real gold ring; 10 cents. Lettuce Cream Co., Dept. S, Brooklyn, N. Y. 6

Fruit Packages of all Kinds

Before ordering your supplies write for our **Descriptive Catalogue and Price List.**

BERLIN FRUIT BOX CO.,
Erie Co. Berlin Heights, Ohio.

RELIABLE FRUIT LANDS

We sell desirable Real Estate anywhere in the Pacific Northwest. We will give you any information desired, gratis, about the best Strawberry, Fruit and Farm Lands in the Northwest. Write us at once for free information.

PURSE AND COMPANY
No. 315 Chamber Commerce, Portland, Oregon.

HOMESEEKER'S OPPORTUNITY

The Tulatin Valley, thirty minutes ride from Portland. Mild, healthful climate all the year—ideal fruit, walnut and dairy lands, on easy terms, $60 an acre upwards. Two interurban railways—good markets—thriving towns—excellent schools. Write for further particulars.

Investment Company
244 Stark St. Portland, Ore.

VIRGINIA FARMS, $500 including new 3-room cottage and 25 acres for poultry, fruit and vegetables. Oakdale tract, Waverly, Va. Midway Norfolk and Richmond. Finest climate, water and markets. F. H. LaBaume, A. & I. Agt. N. & W. Ry., Box SB, Roanoke, Va.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

SPRAYING STRAWBERRIES

Potatoes, Vegetables, Trees; White-washing, etc., quickly and effectively done with the new

"KANT-KLOG" SPRAYERS

Spraying time will soon be here. If any of your neighbors are likely to purchase sprayers this spring, send to us at once for booklets and we will tell you how to get your sprayer free.

Rochester Spray Pump Co.
12 East Ave., ROCHESTER, N. Y.

In Writing to Advertisers Please Mention The Strawberry

SPRAYING TIME

Why carry loads of water to spray! Do the work more effectually, quickly and easily by applying the insect poison direct with the

ACME POWDER GUN

It puts the powder right to the spot—under and all about the leaves and stems. Bugs, worms and insects can't escape; and just a puff to the plant does the business. If your dealer hasn't it, send $1.00 and his name—we will ship Powder Gun, *charges paid*. Handles any kind of powder insecticide. Ask for little book for particulars, sent free.

POTATO IMPLEMENT COMPANY,
Box 531 Traverse City, Michigan.

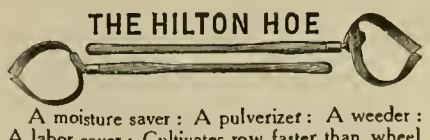
HURST POTATO & ORCHARD SPRAYER

ON FREE TRIAL.

No money in advance—Pay when convenient. Sprays Everything—Trees; Potatoes, Truck etc. 4 rows at a time—20 acres a day. Doubles Your Crop—extra yield one acre will pay for first season. A boy can operate it. GUARANTEED FIVE YEARS. Wholesale Price (where no agent). AGENTS WANTED. After trial, if you keep it—pay when you can. Special FREE OFFER for first one in each locality. "SPRAYING GUIDE" and full information FREE. Write Today. We Pay Freight.

H. L. HURST MFG CO., 75 North St., Canton, O.

THE HILTON HOE



A moisture saver: A pulverizer: A weeder: A labor saver: Cultivates row faster than wheel hoe. Operator walks backward avoiding water-wasting footprints. Makes ideal dry soil mulch. Hoe can be worked with either face down. Standard size nine inches wide. Handle six feet long. Write **H. R. HILTON, PORT ALLEGANY, PA.**

Edison Outfit No. 5

Free Concerts!

At any time you wish you can have a free concert in your own home—not a concert of one instrument or voice alone, but a concert of band and orchestra music, vocal solos, grand opera as well as comic opera—*anything you like*. The world's greatest artists are at your command if you own a new 1907 model Edison Phonograph, and you don't have to pay fancy prices for a one night's entertainment, but can have free concerts as often as you desire.

Mr. Edison says:
"I want to see a Phonograph in every American home."

WONDERFUL

Edison Phonograph Offer

WHILE this offer lasts we will send to any reader of this paper a Genuine Edison new style 1907 model Phonograph for **free trial in your own home**—a trial lasting two days to a week. Try the new 1907 model Edison in your own home. *Then* if you do not want to keep this wonderful instrument, you may send it back to us at our expense *and we charge you absolutely nothing for the free trial.* **If you like the instrument** with its marvelous variations of entertainment, including the latest popular songs, side splitting minstrel dialogs, beautiful operatic airs sung by the greatest artists, its dreamy waltzes and stirring two-steps, its orations and elocutionary recitals, you may keep the instrument and send either cash in full or the smallest monthly payments at the *surprising rock-bottom prices* on the finest Edison outfits.

$2 a Month now buys a genuine 1907 model Edison outfit including one dozen genuine Edison gold moulded records. The finest improved 1907 model Edison outfit only $3.50 a month. And at **rock-bottom price** no matter whether you send cash in full or pay on our easiest terms.

For Cash in full: So many cash purchasers are getting the finest Edison outfits on free trial that we are obliged to announce again that Mr. Edison allows no discount for cash. We have already given those who buy on easy payments the **lowest possible price** and we *must* treat all the Edison customers alike.

Edison Catalogs FREE

SIGN the Coupon and get the great Edison catalog, quoting the **rock-bottom prices**—*surprising prices*—on the finest Edison outfits. Remember you get an absolutely free trial and can send either cash in full or easy **monthly payments**

TRADE MARK
Thomas A Edison

SIGN the coupon now!

CUT OR TEAR ALONG THIS LINE

FREE COUPON

Edison Phonograph Distributors.
F. K. BABSON, Mgr.
EDISON BUILDING,
Suite 336X1, Chicago

Without any obligations on me please send me free, prepaid, your Edison catalog, Edison poster and catalog of Edison records.

Name.....

.....

Address.....

Don't bother with a letter; the coupon will do.

July 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry---but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Mr. Farmer— How much is your time worth at seed time? You can save half of it by using our **Combination Spring and Spike Tooth Harrow.** Special Introductory Price and *freight paid* to first buyer in your locality. Send for free illustrated booklet and surprising special offer.

2 IN 1 IMPLEMENTS

NAYLOR MFG. CO. (Not Inc.)
4 Spring Ave. LaGrange, Ill.
Factory to Farm.

HURST POTATO & ORCHARD SPRAYER

ON FREE TRIAL.

No money in advance—pay when convenient. Sprays Everything—Trees; Potatoes, Truck, etc. 4 rows at a time—20 acres a day. Doubles Your Crop—extra yield one acre will pay it first season. A boy can operate it. GUARANTEED FIVE YEARS. Wholesale Price (where no agent). AGENTS WANTED. After trial, if you keep it—pay when you can. Special FREE OFFER for first one in each locality. "SPRAYING GUIDE" and full information FREE. Write Today. We Pay Freight.

H. L. HURST MFG CO., 75 North St., Canton, O.

This Sprayer used by leading strawberry growers.

FALL-FRUITING STRAWBERRIES

PAN-AMERICAN AND AUTUMN

strawberry plants that have been transplanted in pots or otherwise can be set as late as August 15 and produce fruit the following September and October. Pot rooted plants of the leading spring-bearing varieties can be furnished including the new **"Golden Gate"** which won $23 on 7 (seven) quarts at the Massachusetts Horticultural Exhibition in 1906. Send for circular.

S. H. WARREN, WESTON, MASS.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recips for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

CHAMPION POTATO MACHINERY BOOK

FREE POTATO BOOK!

Every farmer who plants potatoes should have this great book on **Potato Machinery**, describing the O. K. Champion Planter, a machine that opens the trenches—plants the potatoes any distance apart and marks for the next row—ALL IN ONE OPERATION. Unfailingly accurate. Increases the yield. Saves most of the labor.

CHAMPION POTATO MACHINERY includes every machine necessary to raise potatoes and *get rich* out of them. Why not commercialize your farming and get all there is in it?

WRITE TODAY for this instructive and money-saving catalog. It will pay you well. Be sure to ask for Catalog 151.

WRITE FOR IT. **CHAMPION POTATO MACHINERY CO., HAMMOND, IND.**

DEALERS. Our special proposition to you and big dealers' catalog G is ready. Write for it at once

EVERYTHING OVER THE COUNTER

The reason why our students succeed where others have failed.

AT THE THREE RIVERS BUSINESS COLLEGE

A postal brings fine catalogue and good office $5 bill, such as these young people are using. Write now.

The Strawberry Photographic Contest for 1907

LAST YEAR the photographic contest between members of The Strawberry family aroused much pleasant rivalry, and resulted in giving to the world many beautiful and instructive views of strawberry fields. It is our purpose to make the contest this year of even greater interest to all. We therefore shall offer a duplicate set of prizes---one for the best photograph of a field of strawberries not less than one acre in extent; the other set of prizes for a photograph of a family strawberry patch---as follows:

A---COMMERCIAL STRAWBERRY FIELD		B---FAMILY STRAWBERRY PATCH	
1st prize Photograph, cash	$5.00	1st prize Photograph, cash	$5.00
2nd prize Photograph, cash	3.00	2nd prize Photograph, cash	3.00
3rd prize Photograph, cash	2.00	3rd prize Photograph, cash	2.00

It is to be understood that all photographs submitted in this contest are to be the property of the Kellogg Publishing Company. The season will extend from spring until late fall, the individual contestant choosing his own time for taking the view; the desire being to show ideal conditions at every stage of development of the plants. Expert photographers will pass upon the merits of the photographs and award prizes.

THE KELLOGG PUBLISHING COMPANY
Three Rivers, Michigan

Entered as second-class matter at the Postoffice at Three Rivers, Michigan

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 7 Three Rivers, Mich., July, 1907 $1.00 a Year

THE celebration of the semi-centennial of the Michigan Agricultural College, culminating with the address of President Roosevelt to the class of 1907, was an event of profound significance to the world of agriculture. It was a fitting tribute to an institution which bears the honor of being the pioneer center devoted to agricultural education, and may be accepted as the national recognition of the place occupied to-day by agriculture in higher education. A provision for the establishment of an agricultural college is contained in the constitution of the state of Michigan which was adopted some sixty years ago, and as some one remarked upon the occasion of the recent celebration, it is unfortunate that we do not know the name of the man of far-seeing intelligence who suggested the incorporation of this important provision in that document, a document which must be immortal because of this provision if for nothing else.

NOT alone is the Michigan Agricultural College the pioneer institution of its kind, but it has ranked, and still ranks, as a leader in this great work. It is doubtful if there is a state or territory in our broad land wherein the influence of from one to a dozen men who are proud to call this institution their alma mater has not exerted an inspiring influence for better agriculture. A roster of the men who have graduated from this school to take high place among their fellows would be surprising. Without reference to any list of names, but depending wholly upon memory, we can recall at once Professor L. H. Bailey, dean of Cornell Agricultural College; Eugene Davenport, dean of Illinois Agricultural College; Kenyon Butterfield, president of Amherst; H. W. Mumford, chief of animal husbandry at Illinois; F. B. Mumford, chief of animal husbandry at Missouri; W. A. Taylor, pomologist of the Department of Agriculture at Washington; Perry G. Holden, whose work in spreading the gospel of better corn and more of it in Illinois and Iowa has made his name famous the world over—the list is too long to give in further detail. But what a magnificent tribute is this list of names to the work and influence of this institution!

PRESIDENT GARFIELD once remarked, in referring to the influence of President Mark Hopkins of Williams College, "that a log in the forest with himself on one end, and President Hopkins on the other end, would be a good enough university for him." Somewhat of the nature of this influence was that possessed by the famous Dr. Kedzie, so long the central and inspiring spirit of this great school, and his "boys and girls", many of whom are gray-haired now, never fail to give him due credit for his untiring and intelligent efforts in their behalf. Therefore, both in its local and in its broader significance, it was fitting that the President of the United States should take cognizance of this important anniversary, and lend to its celebration the dignity of his high office. And his address on that occasion was one which paid noble tribute to the man who tills the soil or labors otherwise with hands well directed by a trained mind. He took for his theme "The Man who Works With his Hands," and after paying an eloquent tribute to the college whose guest he was, and to the place occupied in the minds and hearts of the people by the common schools of our country, he took occasion to emphasize anew the great defect in our system of education, which he declared to be the lack of proper attention to industrial training, finding, however, in the achievements of the agricultural college, gratifying evidence of what may be accomplished along these lines.

THIS illustration indicates the manner in which A. A. Halladay of Bellows Falls, Vt., a member of The Strawberry family, sends his fruit to market. For the use of the photograph we are indebted to the New England Homestead. Writing the editor of that journal, Mr. Halladay says: "This shows how all our berries go to market. We use special crates, holding twelve boxes. The band tucks down between box and rim. There are no mussed berries in these boxes, and the boxes are filled just as you see them. The photo was made from an average crate that was ready for market and not put up for show." Is it any wonder Mr. Halladay's berries always top the market? What he has done in this direction others certainly may do.

PRESIDENT ROOSEVELT laid especial stress upon the need of cooperation among farmers, and declared that if they would attain the highest results they must learn the vital need of cooperation one with the other, and its practical adoption into their daily life. Next to cooperation with each other in importance was cooperation with the government through the agricultural department, and the department could accomplish much more in the interest of agriculture through associations of farmers than it could possibly do by dealing with farmers as individuals. This is a suggestion to which strawberry growers and growers of all lines of fruit should give serious thought. The manifest value of cooperation is seen in the success which attends the practical conduct of many cooperating industrial enterprises, and throughout the South and the Pacific Coast states, horticulturists already have adopted cooperation as the most economical and safe method of conducting the commercial side of their business. Some of the epigrammatic sentences spoken by the president in his address follow: "No

growth of cities and no growth of work can make up for loss in number and character of farming population. . . . The bulk of people should work with both head and hand. . . . Progress cannot permanently consist in abandonment of physical labor but in the development of physical labor, so that it shall represent the work of the trained mind in the trained body. . . . We must have a higher plane of efficiency and reward with consequent increased growth of dignity for the wage worker. . . . We must develop a system under which each citizen shall be trained as an economic unit. . . . The greatest of crops is the crop of children."

The address of President Roosevelt was the climax to a week of conventions and celebrations at Lansing ranging all the way in importance from class dinners to the twenty-first annual convention of the Association of American Agricultural Colleges and Experiment Stations. These various celebrations began May 27th, closing on the 31st with the address of President Roosevelt. The work being done by the association above named is among the most important now going forward in the interest of scientific agriculture. That the world outside our own country recognizes the value of the work this association is doing is indicated by the fact that special representatives were in attendance upon its sessions from England, Germany and Italy, while many of our Canadian neighbors were present to express their sense of its importance. Five foreign universities and one foreign agricultural college sent special representatives, while from American educational institutions came representatives from thirty-eight colleges, twenty-two universities, twenty-two experiment stations, twenty-four scientific societies, and eleven agricultural journals.

How One Boy Began

By Edgar L. Vincent

IT was rather hard work for the boy to convince Father that there was any room on the farm to spare for strawberries.

"Got to have the land for things that pay. The garden? We need every corner for potatoes and such things. None too much now. They wouldn't amount to anything, anyhow None of the folks here raise strawberries. You can get 'em out in the field—all you want of 'em. Less work than to raise 'em, too."

But the boy stuck to it that if Father would only let him try a few he would do all the work himself and he believed it would pay. Finally the father told the lad, just to get rid of him, that he might dig up a bed ten feet square out back of the meadow in the pasture. He felt sure the boy would soon get sick of his bargain to keep the weeds down.

The boy had a dollar in his bank and he went and got some wire netting and put up a little fence around his lot. Then he borrowed a few plants of a man who was thinning his out, promising to pay "when he made". He studied the papers to find out all he could about berries and kept them free from weeds and clipped off the runners. This latter was the hardest of all to do. It does come a little tough to snip off every blossom and cut the runners, when all the time you are so anxious to see what the berries—the pretty berries that you have raised with your own hands—will look like. But he did it, and possessed his soul in patience till the second year.

It paid to wait. Father never went near the little field. One day Mother did and she and the boy had a nice visit there all by themselves, thinking and talking about the surprise they would give Father some day.

It was a surprise, and no mistake. How his eyes did stick out when he saw the first little handful of ripe red berries from his little man's field! They tasted as good as they looked, too.

And then one day the boy picked a couple of quarts and took them down to the village and sold them for twenty-five cents. No king ever stepped higher than he did then. That quarter was the biggest piece of money ever made. As he turned it over and felt of it in his pocket it was certainly as big as a cartwheel.

Well, that was the beginning. After that Father could not refuse a little bigger piece of ground for the berries. And he helped the boy some into the bargain. The last I knew they were every year selling a good many bushels and having hard work to furnish all the people wanted. They had plenty of them on the table, too, and now and then they took a basket to some of the neighbors or to an old and sick lady not far away.

And the neighbors began to set out some for themselves. That is the way it usually works; one man does something and if it is a success, others want to have a little of the success themselves. When things are going our way the berry patch moves down from the back lot close to the side of the road, where folks can see what we have been doing. It was that way with our boy's berry patch. It was the biggest thing on the farm.

Binghamton, N. Y.

PRICES for strawberries have been higher this year than last, and growers in the South and Southwest have done well in the main. This is partly due to the influence of organization. At Neosho, Mo., where there are two associations of growers, the season's sales aggregated about eighty cars. From a local paper we learn that "last year the growers netted $1.80 per crate for their berries delivered on the cars at this place, and this year it is thought they will realize not less than $2.25. This will bring them about $108,000, or $21,000 more than last year, for the same quantity of berries. It has been estimated that the actual cost of growing, picking and loading berries on the car is 90 cents a crate. So it will be seen that at $2.25 the grower is making a very handsome profit on his crop. From a financial standpoint 1907 is certainly the banner year for strawberries in the Neosho field so far." Reports from the Southwest indicate that the acreage set to strawberries will be largely increased as a result of the improved market and steadily increasing demand for the fruit.

Bees as Pollen Carriers

RECENTLY the instructor in The Strawberry School had something to say about the importance of pollenation in successful strawberry production, which brought out the following letter from A. L. Boyden of Gleanings in Bee Culture, himself an expert in matters pertaining to the bee:

Dear Mr. Beatty: I am considerably interested in your article on "Intensive Strawberry Culture" in the March number of The Strawberry and the illustrations of the male and female blossoms. Years ago I used to grow the Jessie and have never forgotten the pleasure the growing of those berries gave me.

I write to inquire whether or not you have some experience or any information relative to the value of bees in fertilizing the imperfect blossoms? I believe you did not mention the agency of the bees in your article and I would like to have your opinion as to what part they play in the proper fertilizatic of these blossoms.

Yours very truly,
A. L. Boyden.

To which Mr. Beatty made the following reply:

"In regard to the value of the honey-bee in distributing pollen, the work of these industrious little fellows can hardly be overestimated. When growing berries at Covington, Indiana, I purchased ten hives of bees chiefly for the purpose of distributing pollen, and they performed their duties to my entire satisfaction. I realize that in some seasons much depends upon the honey-bee and other winged insects to carry the pollen from one variety to another. Recently while giving a talk on strawberry growing to the class in horticulture at Lansing, Michigan, the value of the honey-bee was discussed. Professor Fletcher said that some experiments with the honey-bee had been made and that a large amount of pollen dust was found upon the bees.

"In watching honey-bees while at work, I find that they never are still when taking nectar from the bloom, and in moving about from the center cone of the flower many of the matured anthers will burst, and the pollen dust will settle upon the bees, which of course is in turn carried to the next flower they visit. By this method many flowers are pollenized which

otherwise would be left barren. Even when all bisexuals are grown the honey-bee is of much value, as they will carry the pollen dust from flowers of one variety to another, causing exchange of pollen which is quite essential.

"I believe it would pay all fruit growers to have a few hives of bees to work among the flowers of the different kinds of fruits. Their work in connection with the honey produced would, in my judgment, pay handsomely. The honey-bee seems to be exceptionally fond of the nectar found in raspberry and blackberry bloom. My fields of this fruit were a veritable brass band of music made by the hum of the bees while passing from one flower to another. If all my help would work with the same vim and enthusiasm as does the honey-bee, I would not have so many gray hairs worrying over the labor problem."

Importance of Restriction

By M. N. Edgerton

ONE of the most important features of work connected with profitable fruit production is that of judicious restriction in the matter of wood growth and number of pieces of fruit produced by a single tree or plant. Each tree and plant must be considered and dealt with as an individual.

The time and manner of pruning required differs with the different kinds of fruits, but the principle remains the same.

Restricting wood growth promotes healthiness of foliage and greater size and better quality in fruit, aided by timely thinning. The usual time of pruning trees and bushes is in early spring while the wood is yet dormant. The work of pruning the strawberry is done during the growing season; that is, during the time of plant multiplication and bud formation. To get the best results it is necessary to pinch or clip off all unnecessary runners as fast as they appear. Unnecessary growth of vine is a useless expenditure of vital energy in the plant. Every atom of the plant's energy should be directed toward the development of a large crown and extensive bud system.

How are these runners best removed? Some advocate the use of a runner (disc) cutter attached to the cultivator. We have such a tool but do not find it practical. With our twin double-hedge row system a small share only of the runners can be removed with a roller cutter. A good share of the runners will follow the direction of the row and beside we aim to remove the runners just as soon as they are easily seen, before the leaves put out from the nodes.

In short, we find the most satisfactory method with us is to get down on our knees and pinch them off with thumb and finger or cut them with a knife. In this way we can remove a large number just as they are starting out. Some will think this way "puttering", but it suits us very well.

But few growers realize the importance of this feature of the work, hence the few faithful ones will continue to excel in the production of high-grade strawberries.

Petoskey, Mich

Strawberries in the Mountains

By F. W. Sturm

I READ every line of The Strawberry and feel that I profit by the experience of others, so will give you a short history of some of my eighteen years' experience in the culture of strawberries. I keep under cultivation from two to three acres each season and find that we learn a great deal by experience and close observation. I find the first thing of all is to find a kind of berry that suits your soil and climate and then be careful in the location of your bed. At least it is so in our mountainous West Virginia, as they do best generally on high land where they are best protected from frost. I have tested some fifty to seventy kinds and have discarded all but three. Most kinds I have found some good in, but were inferior as compared with some other varieties.

As to soil, I think each one will have to study that in a measure for himself, as a soil that may be good for one kind of a berry will not do so well for another. I prefer a clay soil mixed with a black loam or clay and sand, but I find that any land well drained, that will grow a No. 1 crop of corn will grow strawberries if properly prepared before setting. As to preparation I plow in November or December and at least two inches deeper than I would for corn, and at as early a date as possible in spring I start the harrow and drag and do not set my plants until I have my beds in shape to sow onion seed. I set plants from the 1st to the 20th of April. After plowing in the fall, if ground is not of the very best quality, I give it a thorough coating of stable manure.

As to drawbacks we have but two—they are the white grub and late frosts. The surest and only way to rid the ground of the grub is to follow plow, harrow and drag at every cultivation and pick them up. As to the frosts, one of which we have just passed through (which was a very severe one and took one-third of our crop), we as yet have no remedy that has been tried.

Enclosed find photograph of a two-year-old berry bed and pickers. I have some beds this spring which I am very proud of and would be glad to show to any one, let him be a lover of strawberry culture or not. If this does not find its way to the waste basket will write you again as to manner of setting beds, culture, marketing and management of pickers.

Enterprise, W. Va.

THE avidity with which the public seizes upon a really good article in the way of fruit and renders success certain to those engaged in its production is suggested by the experience of the navel orange. It seems almost incredible that a little over twenty-five years ago the crop of seedless oranges available for shipment was only one box. In 1898, 14,000 carloads went out of California, and in 1904 26,000 carloads were shipped, a total of 10,000,000 boxes. This year the amount

MR. STURM'S STRAWBERRY PATCH ON THE MOUNTAIN SIDE

was much greater. The navel was first introduced from Brazil in 1872, and three years later a California woman obtained two of the slips from the government and planted them at Riverside. In 1879 the buds were selling as high as $5 apiece, and in one year $1,500 worth of buds were sold from these two trees. Now they are found over a wide area of California and the fruit is one of the state's most valuable articles of export, being shipped in millions of boxes and bringing in vast sums to thousands of growers. The navel orange rules in the markets of the world and has been a prime factor in developing California. The demand for first-class strawberries is quite as steady and as strong. Quality's the thing; the people will pay a high price, and gladly, for all the really choice fruit offered them.

Insects in the Strawberry Field

And How to Deal With Them

By R. L. Adams

THIS is the concluding instalment of Mr. Adams' valuable contribution on one of the subjects of first importance to the strawberry grower. To those who read it with intelligent care this article will prove of large benefit when insect pests suddenly appear.

The insects first to be considered in this number are those that appear

On the Blossoms

1. The rose beetle or rose chafer (*Macrodactylus subspinosus*), familiar to everyone and similar in history to the June-bug, will cause great damage to the blossoms. Coming in enormous numbers, spraying has little effect on them, every one killed being replaced by a horde of new-comers.

As the beetles are attracted to the strawberry only secondarily in regions where they abound, the best—and then not wholly satisfactory—method is prevention. Do not choose a situation near rose-bushes, magnolias, raspberries, or other favorite hosts of this insect.

On small beds hand picking in early morning or evening is productive, as the insects are sluggish at that time of day.

2. The second insect which attacks the blossoms is Thrips tritici which attacks the pistils, thus partly or entirely preventing fertilization, consequently they lessen or eliminate the crop. The insect is especially harmful in the South.

The adult is about one-sixteenth inch long, yellow in color with an orange tint, and has feathery-like wings which fold up horizontally down the back like a fan. It is very lively and difficult to catch.

Remedies — Spraying with kerosene emulsion or whale-oil soap is the only available method. Burning will destroy large numbers.

On the Fruit

1. Ants, myripods, and many beetles eat the fruit, but the worst pest is the strawberry weevil (*Anthonomus signatus*) which is a small, blackish snout beetle, one-tenth inch long covered with a gray pubescens The female is often found puncturing the stems and buds of staminate varieties.

The eggs are laid in the buds while they are developing. The stem is then partly severed which arrests further growth and causes it to droop over.

The egg hatches into a small grub which feeds and develops inside the bud until mid-summer, when it pupates, completing the life-history in about four weeks from the time the egg is laid. There appears to be but one generation.

They winter over as adults, coming out in April.

The greatest injury is done to staminate varieties especially Sharpless.

Remedies—Insecticides are of little use. Clean culture, removal of old vines and any blackberry bushes in the vicinity all help.

The most satisfactory method is to grow a few rows of early flowering kinds of strawberries from which the adults can be caught or the plants dug up and burned after the eggs are laid. Or the staminate varieties may be grown in rows and protected with cheap coverings until the buds are ready to open.

2. Insects commonly found eating the fruit are the common stalk borer (*Hydraecia nitela*) and

3. *Harpalus pennsylvanicus*, or the common ground beetle, one inch long and jet black in color.

Remedies—If numerous, poison baits, hand picking, or a contact spray will clean out both of these.

4. The last insect to be taken up is the tarnished plant bug (*Lygus pratensis*), common nearly everywhere in the U. S. living on a wide range of plants. It is very fond of the fruit and leaves of the strawberry, causing the irregular, lumpy appearance known as "buttoning" by sucking the sap.

The adult is a variable mottled brownish or yellowish bug, one-fourth inch long, which hibernates under rubbish coming out in early spring to eat any tender vegetation. Here the eggs are laid which hatch in April or May into young which resemble the adults. There are two or more broods a year, but there is no distinct line, all stages often being found together.

Remedies—A contact poison will kill them. Kerosene emulsion is excellent, but cannot be used after the berries attain any size, as it is liable to taint the fruit. Pyrethrum powder may then be used.

Keep the fields clean and do not permit a lot of old rubbish to remain on the bed over winter as a shelter for hibernating bugs.

Conclusion

In the fight against insects a few precautions are often invaluable.

Do not set a new bed with stock from an old infested field unless it is properly fumigated, a process it is well to put any lot of plants through before they are set out.

Plant the new bed on land that has been under cultivation for at least two years and at considerable distance from the old spot.

Rotate with other crops every two years or when the beds are past their prime.

Plow under old plantations or pull and burn.

Burning over the field consists in mowing the leaves after the crop is gathered, drying for a few days and then burning over. If the bare spots are covered with a little straw a more uniform clean-up will result. This will kill many insects and won't hurt the crown unless a long drought immediately follows. One must take the chances of this.

On the whole the strawberry is fairly free from insect attack. One point that it is well to bear in mind is that one kind of treatment is advised for many insects. For instance, spraying with arsenate of lead will take care of all leaf-eating insects.

In spraying the following amounts are recommended:

Disparene or arsenate of lead, 2 teaspoonsful to a pail, 5 lbs. to a barrel of water or Bordeaux mixture.

Paris green, 1 teaspoonful to a pail, one-fourth lb. to a barrel.

Hellebore, 1 ounce to a pail or three lbs. to a barrel.

Paris green or arsenate of lead can be used safely until the fruit is set, after that, if more sprayings are necessary it is better to put on hellebore until after the crop is harvested, when a return to the others may be made.

If this article falls into the hands of a man about to set out a strawberry bed I trust he will not lose his courage and give it up as a bad job at the outset. Many of the insects enumerated are peculiar to one locality. Others appear only at stated intervals. Parasites aid materially in the warfare against most of them. It is only in times especially favorable that one kind will gain headway enough to become very destructive. It is to have a guide to go by at these times that this paper has been prepared, to help the average man when he finds himself overwhelmed at, apparently, a moment's notice with some unknown and unwelcome guest.

AWAY DOWN SOUTH IN THE LAND OF (REVISED VERSION) STRAWBERRIES

The Autobiography of a Strawberry Grower

By Frank E. Beatty

Chapter IX—In which is shown the Secret of Success in Selling Strawberries

AFTER I had hit upon a successful plan of putting my berries upon the market, I began to realize how easy it was to succeed with strawberries compared with other lines of business I had been connected with. I now had been growing strawberries for about ten years, and my only failure in getting a big crop was in the first year, and that failure was due to improper mating of varieties. I never had had any trouble in disposing of all the berries I could grow, but the principal drawback with me had been to get a plan of putting the berries upon the market at a price which would pay me a liberal profit for my work. I always was too independent to allow customers to set the price on my products. After having worked hard all the year to grow big, fancy berries, and packing them in up-to-date fashion, and then to have the grocer, who knew nothing about the cost of producing such berries, tell me what I should sell them for, did not strike my fancy a little bit. It is too much like giving entertainments and depending upon a hat-collection for pay. I never knew any showman to get rich in that way.

Some growers will argue that it is easy to sell berries from one or two acres at your own price, but that this might not be done with a large acreage. I found that this argument did not hold good. It was just as easy for me to sell the berries from eight acres at my own price as it was from one acre. It was simply a matter of arithmetic. The more acres, the more dealers and towns; and if it can be done with eight acres it can be done with twenty acres. If the grower is careful in packing his fruit he wins a reputation, and as his acreage expands so does his reputation. I had the reputation of being the high-priced man in my locality. If a stranger came to town and inquired where he could get a case of choice berries, he almost invariably would be referred to me, and he would also be informed that he would have to pay a good big price for fancy berries. There was really no greater honor my friends could bestow upon me than to call me the high-priced fellow, for that is one thing that made the stranger desire to see my berries. Anyone realizes that in order to get high prices it is necessary to have high-class goods. No one ever objected to the price after they saw my berries.

"My conscience! what big red fellows those are on top! Will they stand inspection at the bottom?" would be the first remark. "Yes, sir; just pick out any quart box from a crate, and if you don't find the berries just as fine at the bottom as on top, the whole crate is yours free," was always my answer. And if the customer did not pick out a box I did, and it was tipped enough to show the berries clear to the bottom of the box.

"Did I understand you to say that whole crate was only $3.00?" was the next question.

Before they had seen the berries they would say: "What! $3.00 for one little case of berries! It is no use to look at them for I never can pay such a high price!"

But I showed them just the same, for I knew that when they gazed upon a crate of those enticing berries, their $3.00 would not look half so big to them. I tell you, dear reader, the eye and the appetite work in perfect harmony, and they have a big influence upon the pocket book.

I learned from my experience in selling goods upon the road that it was not good business policy to be stingy, and there were always a few extra quarts of the choicest and sweetest berries set aside to treat customers with. While this was undoubtedly a great help in effecting sales at good prices, yet it was not done es-

pecially for that purpose, but more to be sociable. I always did enjoy making friends, and then treating them so they always would be friends. I believe anybody admires a high-priced liberal man better than a cheap-priced stingy man. I believe this out of actual experience, because my reputation grew, my business grew, and my acreage grew, and the fact that I sold my little thirty-seven acre farm for $10,000, and that the purchaser made about $5,000 upon his investment the first year, are evidences that reputation figured largely in the transaction.

IN a letter containing a subscription to The Strawberry for a friend W. R. Marshall of Sedgwick, Ark., says: "I sold $154 worth of strawberries off 100 rods of ground and we used lots of them ourselves. What do you think of Klondikes as large as hen's eggs? We had them."

The Part the Package Plays

By Ray G. Johnson

WE have been one of The Strawberry family for a year or more and enjoy its visits greatly. In the May issue appears an article on "Picking and Marketing Strawberries", from Rural New Yorker, written by H. W. Jenkins of Missouri. This article interested me because we are about to face the problem of marketing ourselves. We have been growing strawberries for market for about twelve years, but our strawberry crop is a side issue, peaches, plums and apples being the main crop here; unless one has only a few acres, it is useless to grow the large and small fruits and make them both the main or dependable crops. Therefore, while we like strawberries and love to work among them, we do not make a business and study of them, although we are successful with them.

Our strawberry area consists of three small patches of one-fourth acre each, two of which are two years old, and the third one year old; and at present we are busy setting out one-half acre of young plants.

We have tested more than seventy-five varieties of strawberries and find from experience that for earliness and abundance nothing quite excels the Michel's Early and Crescent. Lovett and Seaford are good producers, but not so early. The varieties which are growing into favor here as market and shipping berries are the Sample, Senator Dunlap and New York on this soil (which is a rich black loam with clay subsoil). Sample is a wonderful plant grower and very prolific.

Our market is a local town of about 4,000 population. There is a strong demand here for the strawberry, consequently the price is good. We sell direct to the grocers and fruit men, not to just one, but to nearly all. I notice Mr. Beatty advises selling to only one firm in a town. I believe he is right; if we sell to one dealer we can build a reputation with that dealer and hold the price where it belongs. We advertise for pickers and usually have a score of boys and girls respond. They are interested to get some Fourth of July money. We pay two cents a quart for picking, but the sorting is done by the overseer and packed for market.

Mr. Jenkins' method of providing numbered slips for each picker to put into every box is a good plan; also the holding back of 25 per cent of wages till the end of the season. We have not tried either of these plans, but believe they are just the thing, and will try them this season.

In the last few years we have had some difficulty in keeping our quart boxes; upon getting our empty crates of the grocer we usually find a lot of old broken boxes in place of our own and frequently half of them gone. It is impossible to get our dealers to take care of our boxes. I would like to know if some one can suggest some good plan to overcome this common trouble?

The prospects for a good crop of berries are good. I am looking forward to the June issue of your excellent paper, as well as to the berry itself.

Port Clinton, Ohio, May 17.

IN our judgment, the best thing to do in the matter of the berry box is never to use one a second time; for what may be "saved" by so doing is more than lost in the moral influence of a poor-looking package. "The package sells the fruit," is the claim made by one of the well-known fruit-package manufacturing houses that patronizes The Strawberry's columns. There is no doubt that the effect upon the public of a neat, clean, sweet package is incalculable, and the fraction of a cent that a box costs is more than covered by the added attractiveness of the package where the bright new box is used. A stained box, showing signs of previous service, is quite likely to stand in the way of the sale of very nice fruit. Don't "economize" in that way!

ONE report to the Minnesota State Horticultural Society has special interest for strrwberry growers. G. A. Chaffer of Long Lake, Minn., says that he had an unusual success with a strawberry field of one and one-half acres, planted on a clover field, turned under just before planting. The clover growing in amongst the strawberries the year after planting partially shaded the fruit. The crop yielded at the rate of $400 to the acre. After securing one crop the field was turned over.

AT its recent meeting the Western New York Horticultural Society elected officers for the ensuing year as follows: President, W. C. Barry, Rochester; vice-president, S. D. Willard, Geneva; J. S. Woodward, Lockport; T. B. Wilson, Halls Corners; B. J. Case, Sodus; secretary-treasurer, John Hall, Rochester.

JOHN RUCKER OF BOSTON, N. Y., STARTING TO MARKET WITH HIS STRAWBERRIES

Intensive Strawberry Culture---Preparing for Second Crop

By Frank E. Beatty

IN this article on intensive strawberry growing I want to discuss the importance of preparing the strawberry bed for the second crop. When this issue of The Strawberry reaches its readers most of the strawberries will be gathered and fields that have produced only one crop of berries should be prepared for a second crop. If the work is carefully and properly done, there is no reason why the second crop should not be as successful as the first.

In treating upon this subject it is my intention to give my own experience, and I believe that every one gets more of value from an article based on actual experience than from any other. I have always been very successful in getting a profitable second crop of strawberries and I want our readers to be just as successful as I have been. I never try to put any "flowers" in what I write—nothing but boiled-down facts.

Of course, there are some fields of strawberries in such poor condition that it would not pay to expend the work necessary for a second crop. In this case the grower must be his own judge. No matter how particular the grower has been, the fruiting bed is almost sure to be encumbered with some weeds or other obnoxious growth, but this should not discourage him in preparing it for another crop. Everyone who has grown strawberries realizes how hard the ground has been tramped by the pickers and how the vines have been pawed over. This, in connection with the big crop of berries produced, has greatly weakened the plants, and if the grower will mow off the vines just as soon as the last berries have been removed and burn the old foliage and mulching, then take a bar shear or common breaking plow and turn a furrow over from each side of the row into the space between the rows, this will make conditions quite favorable to a second growth. The cutting off of the tops will throw much strength to the roots. The burning over process will destroy fungous spores and insects of all kinds, and cutting a furrow from each side of the row breaks up the soil in such a way as to make it easy to get a good bed of loose soil in which the plants may make their new root systems.

Now after this work has been done, and while the plants are setting in the narrow space left by the plow, the grower should go over each row with a hoe and thin out all of the older plants, leaving a good strong hill every twelve or fifteen inches, and when this is done a five-tooth cultivator can be run over the top of the ridge which was made by the breaking plow. This will level the ridge down to its proper place. Then go over each row with a garden rake or a hoe and fill in all the places around the plants that the cultivator did not fill and in doing this draw a little soil over the crowns. The soil should not be more than one-half inch deep over the crowns. Covering the plants in this manner assists them in building up a new root system, which is made just below the crowns and above the old roots.

If the field is too large for hand work, a common harrow can be drawn crosswise over the ridges. This will draw soil enough over the crowns of the plants to enable them to build up their new root systems. Some growers claim that they have lost plants by burning over the bed, and this is because they did not do the work properly. They would mow the tops off and defer the burning for a week or ten days, and during this time the crowns would send up new growth and then, of course, a hot fire would kill the plants.

During hot weather the vines will dry in twenty-four hours and the burning should be done just as soon as the foliage will burn. Sometimes rain will come directly after the plants have been mowed off, and it will remain wet for several days. In such a case as this a grower should examine the plants, and if they have started to make new growth it would then be best not to burn at all, but rake off the coarsest of the mulching and foliage and haul it from the field; but nine times out of ten, if the grower will watch the weather conditions closely and act promptly, the burning can be done successfully.

Before the burning is done the mulching should be loosened up a little. In small beds this work can be done with a long rake handle. Just run it under the mulching and raise it up so the air will get under to dry it on the under side. In large fields a hay tedder is a valuable tool. This will kick up the straw in such a manner that it will dry out thoroughly and will burn very quickly.

The burning is always most successful if it can be done on a windy day. I always do the firing by taking a fork full of dry straw and set it on fire, then walk along the rows of the side from which the wind is coming. In this way with the help of two men I can burn ten acres in about one hour. If the straw and vines are loosened up the fire licks it up mighty quick.

After I had narrowed down the rows and covered the crowns with soil I would take a weeder and go over the field in both directions. This levels it up and gives it the appearance of a field without anything planted in it, but in a few days plants would send up their foliage above the soil, showing bright green streaks clear across the field. Just as soon as the plants were large enough so that the row could be followed easily, the Planet Jr. twelve-tooth cultivator was put in service. Hoeing and cultivating was carried on the same as in a newly set field. Each hill was allowed to make enough runners to form a rather wide double-hedge row. After my ideal row was formed the rest of the runners were treated as weeds.

If the soil was not rich enough to suit me, I had manure hauled and scattered between the rows. This was applied before the plants began to come up, and the manure was, of course, incorporated with the soil in cultivating and hoeing.

When a field is prepared and handled in this manner it takes an expert to tell it from a field of newly set plants, and at fruiting time the berries were just as big, and just as many of them, as during the first crop.

Now just a few suggestive "don'ts" and I am done.

Don't leave the plants stand a day after the last picking, but mow the vines off at

PRINGING STRAWBERRIES TO HUMBOLDT, TENN , FOR SHIPMENT TO THE NORTH

once, and don't neglect the loosening up of the mulching.

Don't neglect to burn the bed over after the mulching is dry.

Don't be afraid, or so tender hearted after the rows have been narrowed down, to cover the crowns with fine soil.

Don't neglect the cultivation and hoeing after the plants have come up; and above all, don't allow the runners to mat thickly.

Don't get tired or discouraged and give up, but just keep cultivating, hoeing and cutting runners, and layering runners to make an ideal double-hedge row.

I think by coupling these ideas with your own, you always will be successful in getting a good and profitable second crop of strawberries.

Berries from the Viewpoint of Health

By Edgar L. Vincent

CARING for strawberries is one of the most healthful occupations one can engage in. When we came on the farm, I had quite poor health—stomach all out of order, so that I had to be very careful all the time about what I ate. In fact, that was one of the reasons why I was led to give up town life and move out to the farm.

We wondered why none of the farmers in our part of the country ever set out strawberries. If we ever had any we had to wait for an old man to drive up to the farm from his place ten or twelve miles away. Then at times, especially when they had a lot of fruit on hand that they were afraid would spoil, the grocers in town would get a man to go out into the country with some, but they were mostly poor and indigestible fruit.

In a day of great hope we ordered a couple of hundred plants. They came and we set them out on a nice plot of ground near the house. It was our first experience with berries, and we made some mistakes. But one thing we did do, we watched those plants and kept the weeds out of them. Another good thing resulted; and that is, health came to me. Digging in the ground was a fine thing. The smell of the fresh earth is better than medicine. Changing the mind is another fine thing. One stops thinking so much of self.

I don't just know who it was that discovered the first big red berry, but I will venture to say that it was a boy with the sharpest kind of eyes. Probably that berry was not so very red all over when the keen eye of Laddie traced it to its hiding-place under the rich ambush of leaves. It was a great day when he piloted us out to look at the glorious thing. When I saw that splendid cluster of star-bright fruit on the cover of the May number of The Strawberry, it made me think of that beautiful first berry we found in our little garden. The sight of that did us all good as it doth always the upright heart to look upon the fruit of one's own hands. It brought health and strength to us that will never be forgotten.

Binghamton, N. Y.

ALL THE BOYS IN THE FAMILY TAKE A HAND IN THE STRAWBERRY PATCH

Some Wonderful Friends of Ours

BEES are not only wonderful little beings in their achievements as honey producers. Scientists who have carefully noted their methods of conducting affairs have discovered that they have a clear and definite form of government, having the mixed characteristics of a monarchy and a democracy; they have a system of cooperation and are guided by a code of ethics far in advance of anything yet devised and observed by man. Prof. Gaston Bonnier says of his observations: "My experiments have revealed the fact that the division of labor among bees is carried to a surprising extent. Bees which are seeking for pollen or nectar do not carry it, but merely carry the news to the hive. A number of bees are sent out to strip the flowers, a number carrying pollen only, others nectar only, others again water only where water is needed. The number sent out is proportional to the number of flowers to be stripped, and by marking the bees with colored tale it was proved that each bee confined itself for the time being to one class of work. The same bee might be seeking for flowers in the morning and collecting in the afternoon, but did not change the nature of its work without returning to the hive.

"There seemed to be something in the nature of a working agreement between bees of different hives, as when the work of clearing a certain area of flowers had once been commenced by a few bees from one hive these collectors were not interfered with by bees from other hives."

ONE member of The Strawberry family who grows the most popular berries in his part of Oregon has won special distinction this season. The Coquille (Ore.) Herald, after quoting the Portland Oregonian to the effect that the first Hood River strawberries of the season had reached Portland May 16 and sold for 50 cents a pound, goes on to say: "What of it? H. A. Todd of the Round Hill farm, Arago, Coos county, Oregon, had elegant fully ripened strawberries in the Coquille market May 1, beating the Hood River grower just sixteen days, and his customers did not have to pay 50 cents per pound for them either, as they were retailed at 25 cents per pound." Brother Todd certainly has reason to be proud of his record, and The Strawberry is proud of him.

THE farm-labor question is intelligently treated and certain aspects of it solved in an attractive and expensively gotten up forty-eight page, illustrated book, published by the American Fork & Hoe Co., 745 Am. Trust Bldg., Cleveland, Ohio. We urge every reader of The Strawberry to procure a copy before the present limited edition is exhausted. Write for it at once.

ANNOUNCEMENTS have been issued for the National Purity Congress to convene in Battle Creek, Michigan, October 31 to November 6, 1907 This congress will be held under the auspices of the National Purity Federation, an association having for its object the cooperation in a national sense of all forces in the United States that are striving to promote purity in the life of the individ-

ual and in social relations. Eminent speakers from all sections of our country and some from abroad will address the congress. A program is being prepared which will cover every phase of the movement, including preventive, educational, rescue, legislative, law enforcement and sanitary lines of effort; the white slave traffic, social diseases, and good-health topics. A general invitation is extended to all who are interested to attend this congress. The Strawberry considers its mission to be distinctly along horticultural lines, but it is glad to aid in giving publicity to this movement whose sole purpose is the uplift of all. We are sure that strawberry folk everywhere will bid godspeed to this noble endeavor.

Preparing Ground for Strawberries

By Francis A. Badger

FOUR acres were selected of a deep, strong loam with a clay subsoil, sloping gently toward the north-west, as this slope lengthens the season for late berries. By the way, setting early varieties on a south-east slope the early season will be made more early, which is the object sought, as we wish to make the season as long as possible.

This land was broken in November, 1906, to a depth of nine inches with a sulky plow and every rock struck at that depth taken out; and while my land is not called rocky, it would make a good-roads advocate, looking for material smile a broad smile to see it after I got over it. This spring it was harrowed with a disc harrow, the work being repeated once a week until about the last of May, when some who saw it told me it was too bad to waste that piece by planting it to potatoes when it was good enough for corn. But it was planted to potatoes just the same, as I find this thorough cultivation brings the bumper crop of potatoes as well as everything else.

Rows three feet apart are furrowed out straight and potatoes cut to single eyes are dropped in the furrow ten to twelve inches apart using from three-fourths to a ton of special potato fertilizer per acre. No stable manure. These are covered with a cultivator with wings reversed leaving a ridge which is leveled by using a float made of plank and drawn over it lengthwise. This is followed by a light smoothing harrow once in four or five days, running both ways so that the field is level when the potatoes come up.

This treatment is kept up as long as the tops will go under the frame of the harrow, and then the twelve-tooth cultivator is used alternately with a five-tooth, gradually working the dirt toward the plants. Just before the last cultivation the field is gone over by hand and all weeds and grass are removed and then with cultivator they are hilled up and

FRANCIS A. BADGER

"laid by" with the exception of spraying; for if the bugs eat the tops you won't eat many potatoes.

When the tubers can be handled without breaking the skin harvesting begins, and they are taken direct from the field to market. The tops from four rows are thrown together with any stray weeds and when dry are burned and the ground is ready for plowing about the last of October, 1907, too late for a cover crop, but that is furnished free in the shape of heavy snows in this latitude.

Through the winter this will be given a coat of stable manure, twenty cords to the acre. This would be more than could be used to advantage on some soil, but this does not leach and the crop of grass that will grow after two years of strawberries is good proof that it is not wasted.

As soon as the ground can be worked in the spring of 1908 this manure will be turned under six inches deep and then harrowed until it is ready to plant, and then harrowed twice as much more and after smoothing, rolling and marking it will be ready to set strawberry plants, and should grow, with good care, as many bushels of strawberries as potatoes. My yield of potatoes is usually 300 bushels, or slightly over, per acre, which sell from the field in the fall to regular customers at 50 cents per bushel as a minimum price.

Belmont, N. H.

UNDER date of June 17, M. N. Edgerton of Petoskey, Mich., writes The Strawberry as follows: "We are having the finest kind of weather for proper pollenation of strawberry blossoms. Varieties of the Warfield class began blooming middle of last week. We covered leaves with Bordeaux just previous to this. Such a luxuriant healthy growth of foliage; we never saw its beat. The bed is located in a sheltered place and the plants are just humping themselves. We shall install an irrigating outfit this week at an expense of about $200. People who like great big strawberries will help pay for it. If we don't make a success of our strawberry crop this season we will know the reason why!"

SIMON SCHERTZER of Ada, Ohio, writes The Strawberry as follows: "If you have felt the charm of strawberry growing it will sweeten your declining years to mingle with the blooms and handle and taste the ripened berries. I quite agree with S. H. Warren on the association of plants. Seven years ago I purchased fifty Enhance (B) and fifty each of Crescent and Bubach (P). Being a beginner and not caring to sell plants or berries, I mixed them all together. I still propagate a quarter-acre of the mixture and find them similar somewhat in fruit and foliage. Indications point to a larger crop than ever, due, no doubt, to my association with The Strawberry journal. I have added some other famous

IN THE STRAWBERRY FIELD OF GEORGE CREWS, ELKVILLE, ILL.

varieties and will make the strawberry more of a specialty as experience has taught me that it's not in apples, pears, peaches and plums, but from the good old strawberry that I get the money. Have increased my strawberry patch to one acre. Had my associations been earlier with The Strawberry and its school of experts, I would not have made the strawberry a side issue."

Growing Strawberries On Shares

HERE is a typical inquiry and one suggesting a common source of misunderstandings and vexatious disagreements. We have sought, in answering the questions of this member, to establish a general basis upon which to proceed in all similar cases.

G. F. G., Hornell, N. Y. My neighbor wishes me to join him in planting berries—strawberries and black caps. He is a farmer, has good soil, lots of manure and tools. What I would like to know is, just how to divide the crop. I was thinking if I furnished the plants, set them and did all the work to be done on a strawberry bed, furnished crates and baskets and paid for half of the picking I ought to have half of the proceeds. If I am not right would you please suggest what you would think is right?

You are altogether too modest in your views of what you should receive as your share, under the circumstances. The simplest way to figure this matter out is to set down in one column the value of what your neighbor is to contribute, and set down in the other column, the value of the labor you are to perform, the cost of plants, etc. Let us take one acre for example. We will call your side Mr. A, and your neighbor's, Mr. B.

Mr. A.

The best estimate we can make for the cost of plants, setting, cultivating, mulching, picking, packing and crating, furnishing crates and boxes, with 6,000 quarts to the acre, is	$220.00
This, we understand, is the part you would perform.	

Mr. B.

1 acre of land at $5 per acre rental	$ 5.00
15 two-horse loads of manure at $1	15.00
Use of tools, which would include plow, cultivator and hoes	5.00
	$25.00

Of course, the value of the land may be more or less, but it certainly ought not to be more than $10 an acre, as that would be 10 per cent on $100 land, and that is a large rental, unless the advantages of the location are very superior and would tend to reduce the cost of handling the crop greatly over any other available land. We note you say that B would pay one-half the cost of picking the fruit. In the estimate of expense above for labor we have calculated $60 for picking 6,000 quarts of berries. If he paid $30 of that it would add $30, of course, to his side of the expense, and reduce yours by that much, but you see that even then the ratio would be as $190 to $55. Or B's rights in the matter would be 29 per cent as against 71 per cent as your share.

And here is a question from a Wisconsin member which is of importance just at this season:

K. M. K., Solon Springs, Wis. When we uncovered our strawberries this spring we discovered a great many green bugs or beetles among the leaves of the plants. They are about one-half inch long; body is flat, and oval, with tail slightly pointed. The head projects from the body like a beak. Are these insects injurious to the plants, and if so what is the remedy?

2. Is Bordeaux mixture as effective against mildew as liver of sulphur?

3. I read with great interest your article on the mating of bisexuals. How would you place Parsons' Beauty, Senator Dunlap, Pride of Michigan and Dornan so as to secure the largest results?

From the description of the insect you give us, we are unable to tell just what it is, but do not believe it will do any injury to your plants. In case they do start feeding upon your plants, spray with Paris green.

2. We always have received better results from using liver of sulphur for mildew than from Bordeaux mixture. Two and a half pounds to forty gallons of water, thoroughly mixed and sprayed on plants while it is fresh, will keep the plants perfectly healthy.

3. Set the several bisexuals you mention as follows: Dunlap, Pride of Michigan, Parsons' Beauty and Dornan, setting about three rows of each kind alternately.

WRITING from Clifton, Ariz., Ira Hooker, a member of the family who is working to make a big success of strawberry culture in the hot Southwest, writes us as follows: "I note in the May issue of The Strawberry that J. A. P., Ripon, Calif., is bothered with red ants, and that you suggest no practical way to destroy them. Just tell your readers to try cyanide of potassium. Put four ounces into a gallon of water and when dissolved bottle it for instant use. Pour it into the ant-hole and watch results. If the ants don't begin to die in a minute, make the solution a little stronger. The cost is very little; as to its effectiveness those who try it may judge for themselves." We have not tried this method, but cyanide of potassium is a powerful poison whose fumes are deadly, and no doubt the pestiferous ant finds it so. In handling this poison take care that you do not breathe its fumes. All poisons should be carefully handled.

THE first slice of goose had been cut, and the negro minister, who had been invited to dine, looked at it with as keen anticipation as was displayed in the faces around him,

"Dat's as fine a goose as I ever saw, Brudder Williams," he said to his host. "Where did you get such a fine one?"

"Well, now, Mr. Rawley," said the carver of the goose, with a sudden access of dignity, "when you preach a special good sermon I never axes you where you got it. Seems to me dat's a triv'l matter, anyway."—Scissors.

ONE of the most valuable inventions from the viewpoint of the farmer is a new harrow which has just been put on the market, which, it is claimed, actually reduces the labor of preparing the seed bed by one-half. This really wonderful agricultural implement is called the 2-in-1 Harrow and is manufactured and sold direct to the farmer by the Naylor Manufacturing Co., 4 Hillgrove-ave., Lagrange, Ill. Mr. Naylor, the superintendent and general manager, is a practical farmer of many years' experience. This harrow combines in one implement the virtues of both a spring-tooth and spike-tooth harrow. Where formerly it was necessary to go over new plowing with a spring-tooth harrow to break up the sods, following with a spike-tooth to complete the process, this new harrow does it all in one operation, thus saving half the time on men and team. This harrow has also developed many other features in actual use, which are highly approved by agricultural experiment stations and all who have used it.

WHERE will you go this summer? If you desire rest and recreation why not try "The River St. Lawrence Trip?" Folders descriptive of the Thousand Islands, Rapids, Montreal, Quebec, Murray Bay, Tadousac, the far famed Saguenay River, etc., on application to any railway or steamboat ticket agent. For illustrated guide, "Niagara to the Sea," send 6 cents in postage stamps to H. Foster Chaffee, A. G. P. A., Toronto, R. & O. Navigation Co.

STEAM CANNING BOILER For small Canning Factories and Home Use. Price $10. Can your own corn, peas, pumpkin, fruit fish, corned beef. Agents and Dealers Wanted.
NORTHWESTERN STEEL & IRON WORKS, Box B. F. Eau Claire, Wis.

MAKE MONEY CANNING FRUIT for others. They'll pay high cash prices. Send for free, money-making catalog. Tells all about costs and profits made with our canning outfit. Send now. Begin to reap profits this season.
MODERN CANNER COMPANY, Dept. M, Bridgeport, Alabama.

CLASSIFIED ADVERTISING COLUMN

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in and for purpose wanted. Madison Cooper Company, No 100 Court St., Watertown, N. Y. tf

FARMS AND LANDS FOR SALE

FOR $1,000, desirable home in Stoughton, Mass. House containing two tenements—6 rooms and 4 rooms. One-half acre of land, trees and shrubs, valuable asparagus bed, good market. Less than a mile from post office, not far from steam and electric cars. George H. Porter, Stoughton, Mass.

IF YOU WANT TO SELL, trade or buy a farm, send full description of what you have or want, with 25 cents, to the Farmers' Want Journal, Dept. 88, Kansas City, Mo., and we will advertise it before 30,000 buyers and sellers and send you a copy of the paper. 10

STRAWBERRY FARMS and Country Homes in the Tidewater section of Virginia. Some beautiful water front properties. Wilcox and Goodenow, Norfolk, Virginia. 7

THE finest small fruit farm for sale in Mahoning county. Manasses Flohr, New Springfield, Ohio. 9

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

IN all the history of American horticulture there has been no more trying season than that of the spring of 1907. This is no more true of strawberry growing than of all other lines of horticulture, but we have taken special note of conditions relating to the strawberry, and it is remarkable how widespread and universal have been the complaints concerning the influence of the weather upon the strawberry crop. Although spring was ushered in with a temperature of 64 degrees at Chicago and the promise that winter would soon give way to the sunshine and warmth of spring, freezing and thawing weather alternated over large sections of the country until the close of May.

One of the enthusiastic friends of The Strawberry wrote us that his beautiful field of strawberries, an illustration of which adorned the cover page of The Strawberry for September, 1906, was quite destroyed by a heavy frost May 26, 1907. Thus it will be seen that not only has it been difficult for new-set plants to retain their hold upon life, or take firm grip upon their new environment, but that old and well-established strawberry beds have been quite destroyed, or at least the crop of fruit has been lost or seriously reduced, as a result of the remarkable weather conditions which so long prevailed. And this is true of all the states extending as far south as Tennessee, Maryland and the southern portions of Kansas and Missouri.

From one of our friends who has a famous fruit farm in the garden spot of Illinois, we have just received a letter which contains the following: "Our asparagus has been no good. Plums and cherries frozen, and now it begins to look as if the pollen is to be washed out of the strawberries. Red raspberries are killed, and most of the tomato plants blackened with frost. We still have some apples and peaches hanging on, and the chicken crop is good; and we shall hope for the strawberries until all hope is gone."

And yet, notwithstanding these discouraging conditions, reports received almost up to the time of going to press with the present issue, indicates that where plants have managed to pull through under these conditions, they have thrived splendidly, and give promise of great returns in 1908. Never in the history of The Strawberry farm have plants looked better than at the present writing, and there is a thriftiness and strength in them that gives promise of splendid results. We are glad to say that reports indicate that this is very general, notwithstanding the sense of loss and disappointment occasioned by the havoc wrought by the long-continued season of cold winds, cold rains, and extraordinarily low temperatures.

Nor has the peculiar season affected horticulture alone, but in the great fields of extensive agriculture, losses have been very heavy from the causes named. Texas, Kansas, and indeed all of the great Southwest, have been seriously affected in this way. The planting of wheat was so long delayed in the great cereal sections of the Northwest as to render a shortage in the wheat-crop almost certain, and in the cornbelt the golden cereal is not as far advanced as it normally would have been a month or more ago.

So whatever disappointments our strawberry friends may have suffered, there still is much to be thankful for. The simple fact that the season is the worst of its kind ever known is of itself a promise that we need not expect a recurrence of these conditions for many a year. We hope that every member of this school will go about his work determined to make the best of conditions as they are, confident that in nine years out of ten, he is sure of success if he follows faithfully the instructions received here. Whatever the crop may be this year, let us all resolve that we shall go on with our work, determined to make the season of 1908 repay us, at least in part, for the disappointments of 1907.

A. B. R., Fiskeville, R. I. I send you herewith blossom from my strawberry plants. Will you please tell me what the matter is with it? What causes it to blast and what is the remedy?

Some of the blooms you sent us are affected with some kind of fungus, which causes the center cone of the bloom to dry up. Quite often the first bloom of any variety of strawberries will be affected in this way, but it very seldom injures the crop of berries. Spraying with Bordeaux mixture in the usual way will quite often prevent this trouble.

J. J. F., Slayton, Minn. After mixing Bordeaux I find considerable sediment at the bottom. Should this be placed in the spraying machine and agitated, or should the clear liquid be racked off and the sediment thrown out?

The sediment of which you speak never should be permitted to settle in any large quantity to the bottom, but you should keep the entire mixture thoroughly agitated at all times while you are making the application. It is this sediment which holds the poisonous matter upon the foliage of the plants and makes it effective. Where this sediment fails to go with the fluid matter the latter quickly evaporates and becomes non-effective. After the spraying your plants should be covered with a whitish substance, showing that the sediment has been carried to the leaf in large quantities. In other words, the loss of the sediment practically would mean that the spraying was of little value.

L. M. B., Tonerhill, Ill. Last spring I set out a patch of about one acre of strawberries, taking the plants from the patch that was set out the year before. They did well and they look nice and thrifty, but they are not full of bloom as they should be. Would a fertilizer do them any good, or can you account for their not bearing?

The poor showing made by your plants is due to the fact that you took them from a bed that had fruited one year. This is very bad practice, as the strain of fruiting causes the plants to deteriorate through pollen exhaustion and seed production. Plants should always be taken from a bed where the plants are grown for propagating purposes only. It would do no good to fertilize your plants so late in the season. The buds are all made in the fall, and all the fertilizer you would use on plants in the spring would not increase the number of fruit-buds. Nitrate of soda, properly applied, will increase the foliage, which also increases the size of the fruit, making more quarts, but it does not increase the number of berries.

J. W. S., Bethel, Vt. My strawberries are just beginning to bloom and I notice that that part of the blossom which is to become the fruit has turned black, some are still green but partly eaten. Small ants and numerous other insects are around and on the blossoms

2. Would the application of liquified hen manure the first season and the second up to the time of blossoming (a mild solution, of course;) be an advantage?

3. Why is it not advisable to water plants immediately after setting in dry weather?

The bloom enclosed in your letter, having a black center were affected with some fungous growth before they became fully developed. Some scientists claim that this is caused by a small mite working upon the cone of the flower, but am confident that it is caused by blight, or sort of smut. Spraying the fruiting bed with Bordeaux

mixture just as growth starts in the spring, repeating in ten days, and again just before the buds open will do much towards preventing this trouble. The ants you speak of will do no injury, more than to carry root aphis from the roots of one plant to another, if there should be any of these aphides present. We cannot tell what the other insects are which are working upon the bloom of your plants. The strawberry weevil often attacks the flowers of strawberries; also the fruit stems. The weevil is a small black insect, and is easily recognized.

2. Liquid manure of any kind is very beneficial when properly applied. The liquid you speak of should be weakened considerably with water before applying it, and it should be applied after a rain, when the ground is full of moisture. The liquid manure would not have any effect upon insects, but it would stimulate the growth of the plants, making them strong and better able to resist the attack of insects and fungi.

3. If the soil and the roots of the plants are very dry, it is all right to dip the roots of the plants in luke-warm water before setting them out, leaving a little hole around the crown of the plant in which about one pint of water should be poured, and after the water has leached down into the soil the opening should be closed with dry soil, which will prevent the moisture from escaping. This is quite a little trouble, and would be ratner expensive where a large acreage is set. But in a small garden it would be a very good plan. The crowns of plants never should be watered, either before or after set out.

F. W. M., Wausau, Wis. I notice quite a number of plants which seem to be dead, and on examining them I find that a small worm is eating the roots. The worm might be called a wire worm. I enclose a few in the bottle herewith. What is the remedy?

The worms are maggots. They feed upon the roots of different species of plants. There really is no remedy we can give you. It has been recommended to place a hen with chickens near the infested patch. The little chickens will destroy the fly which lays the egg. Rotation of crops and clean cultural methods are good preventives.

C. F. S., Deep River, Conn. Will you kindly tell me whether I can plant the common white, bush or field bean, and get a crop, after our strawberries are turned under, about July 1?

2. Would potatoes come all right planted at that time? If so, early or late variety?

It all depends upon the length of the growing season, whether you can mature a crop of beans after July 1 in your latitude. It has been done even further north, but a crop is not certain. However, you would have the satisfaction of knowing that, even if you could not secure a crop of beans, the value to the soil as a renovator and fertilizer would quite equal the value of a crop. Nothing would be better for your soil than to plow under such a mass of nitrogenous vegetation.

2. It would not be safe to depend at all upon potatoes, as the chances would be all against their maturing in so short a season.

J. E. K., Berryton, Kan. Will plants that were set last season and got the fruit all froze do to let make runners this season for next season's setting? If not, why not?

2. Some of my Clydes have no fruit on them. Why?

3. Would these plants that got nipped by old Jack Frost bear fruit enough to pay to let them fruit three seasons. Of course this season would be one season, the one that is now.

As your plants made no fruit, there is no objection to using them for propagating purposes.

2. The Clyde is an exceedingly heavy fruiter, and we can give you no reason why they did not fruit. You did not say whether they bloomed. If they did bloom and they have no fruit it is likely that a heavy frost destroyed the flowers.

3. If your plants are in good thrifty condition it may be that it would pay to leave them for third crop. The fact that their bloom was killed this year by frost indicates that they should be strong fruiters for two good crops yet.

I. H., Clifton, Ariz. In the May issue of The Strawberry you answered my question concerning sulphuric acid applied to bone meal. Will you now please advise me just what quantity of the acidulated bone meal you would advise to the acre on sandy soil containing very little vegetable matter?

About 400 pounds to the acre. If worked into the soil with a little stable manure it will give much better results.

C. E. R., Burton, Wash. I have one patch of about an acre all set with the Marshall except five rows set with the Oregon Iron Clad. This will be the first year for it to bear. Would you advise me to take runners from it to set out a new patch next year?

2. Would I get better results by setting some other variety with the Marshall and if so what variety would do best? The Marshall is the main berry grown here.

3. We have our rows four feet apart and from eighteen to twenty inches in the rows. We keep them in single hills. Do you think I could get more berries by planting closer?

We would not advise you to take plants from your fruiting bed. Young plants should always be taken from plants that are set for propagating purposes only. Many strawberry growers are making a failure in the business simply because they are taking plants from fruiting beds. That is, they are trying to grow plants and fruit in the same place at the same time. This cannot be done successfully.

2. While the Marshall is a strong bisexual, and produces an abundance of rich pollen, yet, like all other bisexuals, it will do better if set in alternate rows with another bisexual of the same season. The Pride of Michigan or Dornan mate well with it.

3. If you would make them three and one-half feet apart you would get several more rows to the acre, which of course would give you more berries.

H. E. H., Waltham, Mass. On the front page of the June issue of The Strawberry is a picture of berry plants covered or shaded with strips of cloth. Does that method have a tendency to ripen the fruit later than otherwise? If so, will you kindly inform me how many days later? Also what sort of material to use as covering. Does it to any extent reduce the yield per acre?

The covering shown on cover of June Strawberry is common cheese cloth, and is placed over the berries for the purpose of retarding ripening, which encourages the berry to grow larger before it ripens. This is the method used for growing large show berries. The shading should be placed over the rows after the berries begin to form. This method will retard the ripening about one week. It would increase the yield rather than decrease it, but would not increase the yield enough to justify placing this over a large field.

M. L. K., Woburn, Mass. I am sending you two leaves picked off my strawberry field which bore fruit last year for first time. I find about the plants a small, shiny black or brown bug about one-eighth inch long, which probably does the mischief. Can you tell me if they are liable to seriously injure my crop, and what I can do to stop their work?

The leaves you send us are eaten full of holes. The holes in the leaves are made by beetles. There are many different kinds of beetles—some are brown, others black—but all insects belonging to the beetle family are leaf-eating and may be destroyed by the use of Paris green or arsenate of lead. We prefer the latter because it may be used stronger without danger of burning the foliage. You may use two and a half or three pounds of the arsenate of lead to forty gallons of water. The best way to prepare it is to put three pounds of arsenate of lead in a wooden bucket and pour over two or three gallons of hot water; keep stirring until it becomes thoroughly dissolved into a creamy substance. Then add enough water to make forty gallons. The larvae of the beetle look very much like a small grub. These

work on the roots of the plants. The best preventive against the beetle is rotation of crops, clean cultural methods, burning over the bed after fruiting and using nothing but pure, clean plants.

E. E. L., Kettle Falls, Wash. A number of strawberry growers here are bothered with what they call the strawberry maggot. It is about one-fifth or one-fourth inch long, with pinkish-brown head and white body. It works on the roots of the plants. When you take up a plant the worms curl up in a semi-circle. What is a good preventive, and also how could one get rid of them?

Your plants are evidently infested with maggots, which are the larvae of a small fly and feed upon the roots and crowns of different kinds of plants. The best preventives are the same as in the case of other insects—clean cultivation, burning over of bed after fruiting and the avoidance of setting plants from an infested bed. In fact, plant life, like animal life, depends more for health and vigor upon simple cleanliness than upon anything else.

J. M. B., Wabeno, Wis. Have planted 900 plants, six different kinds, but are all male. Will they bear big crops of berries?

2. How is cedar sawdust for mulching next fall? Straw or such stuff is scarce in this part of the country and the shingle mills are glad to get rid of the sawdust.

Certainly; bisexuals require no mating, and will do as well when set without pistillates as with them.

2. Sawdust sours the soil; that is one objection. Another is that it would be quite impossible to remove. A third objection to sawdust is that in your latitude you need a covering that will protect the foliage as well as the body and roots of the plants.

J. H. D., Lakeport, N. H. Will the Senator Dunlap or Parson's Beauty make good plants to pollenize the Haverland with for early varieties and the Aroma or Pride of Michigan for late ones?

2. If you pollenize a light colored berry with a dark colored one will it make the light colored one any darker?

3. How much earlier are the Excelsior and Warfield than the Aroma, Bubach and Gandy?

4. Is it because some berries are not pollenized enough that makes them knotty and hard?

Senator Dunlap or Parson's Beauty will mate the Haverland nicely. The Aroma and Pride of Michigan are both strong bisexuals, and are ideal varieties to use in connection with the Senator Dunlap and Haverland.

2. Pollenizing a variety that produces a light-colored berry with a variety that produces a dark-colored berry, would not have much, if any, effect upon the variety producing the light-colored berry. Some scientists claim that it does add to color, but we never have noticed any difference.

3. The Excelsior and Warfield are about one week earlier than Bubach, and about ten days earlier than Gandy.

4. If the bloom is not perfectly pollenized it will make a knotty, hard-end berry. An ill-shaped berry of any kind always is the effect of improper pollenation.

Miss M. E. C., Kirksville, Mo. What price do you pay for picking strawberries?

2. How long shall I leave the stems?

3. When and with what shall I fertilize my strawberry bed after fruiting?

In this locality the standard price for picking berries is 1¼ cents per quart.

2. The stems of each berry should be left about one-half inch long.

3. The best fertilizer we have ever found is stable manure. In your case the manure should be applied after the plants have been mowed off, and the rows narrowed down for second crop. Scatter the manure on top of the ground, between the rows, and work it into the ground with the cultivator.

E. D. R., Gay Head, Mass. Will you please tell me what liver of sulphur is?

Liver of sulphur is a sulphide, or sulphuret, of potassium. It comes usually in a wax-like form and it is especially valuable when made into a simple solution, using one-fourth ounce to one ounce to one gallon of water, for mildew and for various kinds of blight, rots and scab.

H. A. B., Berzelia, Ga. What do you mean by "removing fruit stems" the first year, as appears in April instalment of "Intensive Strawberry Culture"? I simply pinch off the blossoms. Should I break the entire stem off?

2. As to proper pruning of plants before setting out: should all the leaves be cut off except one small one, and why is this done?

3. Relative to your statement that a plant built up twenty leaf stems, four crowns and large well-developed body. Will you kindly advise difference between body and crown of plants, and should the number of crowns in a plant be separated when plants are set out?

4. Also please describe difference between double ahd single hedge rows, and how each should be set out, i. e., distance apart, etc.

It does not matter whether you pinch the fruit stem off, or merely the blossoms. The reason we pinch the entire fruit stem off is because the work is quicker done that way than by taking off one blossom at a time.

2. It is not necessary to remove all of the leaves from the young plants before they are set, although we often do this. If the plant is entirely dormant, then it is all right to remove all but one small leaf.

3. The crown and body of the plant are really the same. Sometimes we refer to it as the body, and sometimes the crown. In the remark quoted we referred to the plant as a whole.

4. The difference between single and double hedge row is that the single-hedge row is simply a single line of plants, each one setting about six inches apart, while the double-hedge row is a double line of plants. Please see May issue of The Strawberry for illustration and full description.

M. W. H., South Merrimack, N. H. I wish to set out part of an acre of strawberry plants. I keep no stock; I keep hens instead. The manure made by the hens must serve for the strawberry patch if it can be made to do so. But hen manure is not a complete fertilizer for strawberries. Will wood ashes serve to "balance" the hen manure? If so, please state the percentage or proportion of ashes I should use with a given quantity of hen manure; also tell me the proper time to apply the ashes to the soil, in view of the fact that ashes mixed with the hen manure would liberate the ammonia and thus detract from its fertilizing power. I have preserved my supply of hen manure with all its strength by adding about one and a half of its bulk of dry earth as fast as the manure accumulated Of this compost of manure and dry soil I have about 500 bushels. Keeping in view the fact that some other fertilizing ingredient must be used to "balance" the hen manure, how much ground will said quantity of compost properly fertilize for strawberries? If I cannot get a sufficient quantity of wood ashes for "balancing" this 500 bushels of compost will sulphate of potash serve instead? If it will, how much ought I to use for each bushel of the compost?

You should have at least one ton of chicken droppings, mixed as you have described yours as being, to the acre. Sulphate of potash alone would not balance up this fertilizer, but you should use the sulphate at the rate of 200 pounds to the acre, and bone meal at the rate of 400 pounds to the acre. This would make an ideal fertilizer for your strawberry bed. The proper time to apply ashes to the soil is just after you have broken it up, and then harrow it into the soil thoroughly.

HOW widespread may be the influence of an up-to-date horticultural association is indicated by the case of the Minnesota State Horticultural Society. That organization has a total membership of 2192 of which 1862 reside within the limits of the state. The 330 remaining are scattered over twenty-three states (North Dakota having 155 and South Dakota 45), two Canadian provinces and the Philippines, the latter boasting but one member. Manitoba contributes twenty-two members and Ontario three.

1 CENT IS ALL IT WILL COST YOU

to write for our big **FREE BICYCLE** catalogue showing the most complete line of high-grade **BICYCLES, TIRES** and **SUNDRIES** at **PRICES BELOW** any other manufacturer or dealer in the world.

DO NOT BUY A BICYCLE from *anyone*, at *any price*, or on *any kind of terms*, until you have received our complete **Free Catalogues** illustrating and describing every kind of high-grade and low-grade bicycles, old patterns and latest models, and learn of our remarkable **LOW PRICES** and **wonderful new offers** made possible by selling from factory direct to rider with no middlemen's profits.

WE SHIP ON APPROVAL *without a cent deposit*, **Pay the Freight** and allow **10 Days Free Trial** and make other liberal terms which no other house in the world will do. You will learn everything and get much valuable information by simply writing us a postal.

We need a ***Rider Agent*** in every town and can offer an opportunity to make money to suitable young men who apply at once.

$8.50 PUNCTURE-PROOF TIRES ONLY $4.80 PER PAIR

Regular Price $8.50 per pair.

To Introduce We Will Sell You a Sample Pair for Only **$4.80**

NAILS, TACKS OR GLASS WON'T LET OUT THE AIR

(CASH WITH ORDER $4.55)

Notice the thick rubber tread "A" and puncture strips "B" and "D," also rim strip "H" to prevent rim cutting. This tire will outlast any other make—SOFT, ELASTIC and EASY RIDING.

NO MORE TROUBLE FROM PUNCTURES.

Result of 15 years experience in tire making. **No danger from THORNS, CACTUS, PINS, NAILS, TACKS or GLASS.** Serious punctures, like intentional knife cuts, can be vulcanized like any other tire.

Two Hundred Thousand pairs now in actual use. Over Seventy-five Thousand pairs sold last year.

DESCRIPTION: Made in all sizes. It is lively and easy riding, very durable and lined inside with a special quality of rubber, which never becomes porons and which closes up small punctures without allowing the air to escape. We have hundreds of letters from satisfied customers stating that their tires have only been pumped up once or twice in a whole season. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially prepared fabric on the tread. That "Holding Back" sensation commonly felt when riding on asphalt or soft roads is overcome by the patent "Basket Weave" tread which prevents all air from being squeezed out between the tire and the road thus overcoming all suction. The regular price of these tires is $8.50 per pair, but for advertising purposes we are making a special factory price to the rider of only $4.80 per pair. All orders shipped same day letter is received. We ship C.O.D. on approval. You do not pay a cent until you have examined and found them strictly as represented.

We will allow a **cash discount** of 5 per cent (thereby making the price **$4.55** per pair) if you send **FULL CASH WITH ORDER** and enclose this advertisement. We will also send one nickel plated brass hand pump and two Sampson metal puncture closers on full paid orders (these metal puncture closers to be used in case of intentional knife cuts or heavy gashes). Tires to be returned at **OUR** expense if for any reason they are not satisfactory on examination.

We are perfectly reliable and money sent to us is as safe as in a bank. Ask your Postmaster, Banker, Express or Freight Agent or the Editor of this paper about us. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any tire you have ever used or seen at any price. We know that you will be so well pleased that when you want a bicycle you will give us your order. We want you to send us a small trial order at once, hence this remarkable tire offer.

COASTER-BRAKES, **built-up-wheels, saddles, pedals,** parts and repairs, and everything in the bicycle line are sold by us at half the usual prices charged by dealers and repair men. Write for our big **SUNDRY** catalogue.

DO NOT WAIT but write us a postal today. **DO NOT THINK OF BUYING** a bicycle or a pair of tires from anyone until you know the new and wonderful offers we are making. It only costs a postal to learn everything. Write it **NOW.**

MEAD CYCLE COMPANY, Dept. "J L" CHICAGO, ILL.

August 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry—but He never did."

PUBLISHED BY

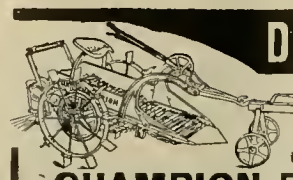
The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

BOOK-KEEPING TAUGHT FREE

A GOOD POSITION and a large salary always await an expert Book-Keeper. We teach you book-keeping thoroughly by mail, and make absolutely no charge for tuition until we place you in a paying position. If you wish to better yourself, write for our guarantee offer and our **Free** book "How to Become an Expert Book-Keeper." COMMERCIAL CORRESPONDENCE SCHOOLS 85C Com'l Building, Rochester, N. Y.

DOUBLE YOUR POTATO PROFIT



This potato digger will save its cost in one season. *It is* the only practical and economical potato digger *ever* offered. Saves money—backache—work—time—and is a necessity with up-to-date farmers. Big catalog describing

CHAMPION POTATO MACHINERY

CHAMPION POTATO MACHINE

FREE to every one who writes It is decidedly to your interest to get this great book **NOW.** Address CHAMPION POTATO MACHINERY CO., Dept. 151, Hammond, Ind.

ROOF BOOK FREE

Illustrated **ROOF BOOK,** just off the press, tells how to lay durable, water-proof, weather-proof and fire-resisting roofs on residences, barns, cribs, poultry houses, outbuildings, stores, etc. How to cover old shingle roofs. No tools necessary but a knife and a hammer. Tells all about the famous

NO-TAR ROOFING

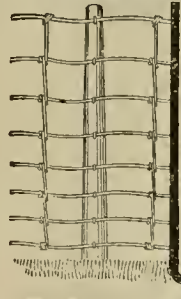
which is better and cheaper than shingles, slate or tin. **Water-proof, fire-resisting and acid-proof.** Contains no tar but is made from asphalt and cannot dry out or run in the sun. Flint-coated, flexible and easy to lay. Best dealers sell NO-TAR ROOFING. Special nails and liquid cement FREE in every roll.

FREE SAMPLES TO TEST When we send you the Free Samples of NO-TAR ROOFING, we will tell you TEN WAYS TO TEST IT and PROVE its superiority to any other roofing.

DEALERS—Write for our Roofing-Business Promotion Plan. Address

THE HEPPES CO., 2931 Fillmore St., Chicago

PAGE Poultry Fence Best for Farm



Page Poultry Fence is woven of high carbon Spring Steel Wire—horizontal bars are coiled springs, which keep Page Poultry Fence rigid and tight at top and bottom—no top or base boards necessary—stay wire is one continuous piece securely knotted.

Fences poultry in—stock out.

Write for interesting folder and catalog.

Page Woven Wire Fence Co
Box 109, Adrian, Mich

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 65 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

This is the Celebrated

"Fendall" Strawberry

Actual size, reproduced from photograph.

A Limited Number of Plants For Sale!

First come, first served. **$5 per dozen, $15 per fifty, $25 per hundred. Yields sixteen thousand eight hundred qts. per acre.** Ready for delivery from Aug. 1st to Nov. 1st, 1907, and spring of 1908.

Other choice varieties for sale! viz:

Corsican, Senator Dunlap, Climax, Pineapple, Orem and Gandy, forty cents ($0.40) per doz., one dollar and seventy-five cents ($1.75) per fifty, three dollars ($3) per hundred, by freight, express or mail. The "Fendall" being a pistillate, Corsican, Senator Dunlap or Climax are excellent mates for it. One row of the varieties named, then four rows of "Fendall", and so on, will give an ideal strawberry patch.

Send at once for descriptive catalogue!

CHARLES E. FENDALL, Towson, Md.

The Strawberry Photographic Contest for 1907

LAST YEAR the photographic contest between members of The Strawberry family aroused much pleasant rivalry, and resulted in giving to the world many beautiful and instructive views of strawberry fields. It is our purpose to make the contest this year of even greater interest to all. We therefore shall offer a duplicate set of prizes---one for the best photograph of a field of strawberries not less than one acre in extent; the other set of prizes for a photograph of a family strawberry patch---as follows:

A---COMMERCIAL STRAWBERRY FIELD		B---FAMILY STRAWBERRY PATCH	
1st prize Photograph, cash	$5.00	1st prize Photograph, cash	$5.00
2nd prize Photograph, cash	3.00	2nd prize Photograph, cash	3.00
3rd prize Photograph, cash	2.00	3rd prize Photograph, cash	2.00

It is to be understood that all photographs submitted in this contest are to be the property of the Kellogg Publishing Company. The season will extend from spring until late fall, the individual contestant choosing his own time for taking the view; the desire being to show ideal conditions at every stage of development of the plants. Expert photographers will pass upon the merits of the photographs and award prizes.

THE KELLOGG PUBLISHING COMPANY

Three Rivers, Michigan

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 8 Three Rivers, Mich., August, 1907 $1.00 a Year

REPORTS from the strawberry fields of the country never have had greater interest than those which have to do with the experiences of the present year. For everywhere has it been recognized that the season of 1907, taken in connection with the peculiar state of affairs that developed during the latter part of the growing season of 1906, was one of the most difficult ever experienced, not only in the strawberry field, but in horticulture in general.

Of course, no general statement of conditions will cover specifically particular sections, although what we shall have to say about them will apply to many sections representing with greater or less accuracy some of the details in the experiences of nearly every state north of the Ohio river. The spring of 1906 was declared by old strawberry growers to have been the worst in thirty years. One grower reported that ice smothered his plants; from one section came reports of drought; in another (along the Ohio river, for instance) the frost destroyed entire areas given over to strawberries; and still others reported destructive floods. Late in April over a large portion of the North a remarkable rise in temperature, which continued for many weeks, checked the natural root-development of plants just forming, while it hastened the maturing of fruit.

Then, to cap the climax, came, in the early days of October, such a frost as never before had been experienced over the fruit sections of the North. It may be said that all other fruits suffered more severely than did the strawberry, cherry, peach, apple and plum trees were killed outright, and one Michigan nurseryman declared that practically all of his tree stock had been killed outright or rendered of no account by the sudden and severe visitation.

Thus it will be seen that fruit came into the growing season of 1907 with a heritage tainted by weakness, a weakness which the conditions of the present year contributed nothing to improve. In fact, the early part of the present season has not alone affected fruits of all kinds, but corn and wheat and hay, as well, have been so influenced by conditions that no one is hazardous enough to venture a prediction as to the outcome at harvest time. And yet, dolorous as all this is, the reports that have come to us only go to prove that the statement so often made in these columns, viz: that the strawberry is the safest crop in the world, is at no time better proved than in such discouraging circumstances as above are briefly noted. The number of Strawberry readers who have written us that they had a tough time of it in the crop season of 1907, but after all realized more than they had reason to expect, is very large, and when we consider that thousands of acres of peach trees, and even hardy cherry and apple trees succumbed to the stress of weather, we think strawberry growers may well take courage from the situation in which they find themselves. Here is one report from a well-known woman who has won more than local fame as a strawberry grower in Illinois. We omit her name because especially requested by her to do so because she did not care to have her business secrets made public. She says:

"We had so much rain during the blossoming time this spring that we were fearful for pollenization, and we had so much rain during the latter part of the picking season that we lost a good many berries. On the whole, the only reason we had to expect very much was that under all these trying conditions and circumstances we have done the very best we could; and the result has been gratifying beyond our highest expectations. There are two acres in the patch. We sold over 8,000 boxes and after paying for boxes, making of the same, picking the berries, paying commissions and for straw for mulch, we had left for our share (I mean by that payment for our labor and use of land) $473.00.

"We picked the last berries on the afternoon of July 17, and by the evening of the 18th it was plowed under, disked and harrowed several times, and planted to Clay peas. On the 20th they could be seen coming up here and there and today (July 22) the field looks green. We had to broadcast them as we could not get a drill.

"Our new bed has about two acres in it. The largest half of it is now in double-hedge rows. I have been working in it myself about eight hours a day since picking is over. Nearly all my friends question both the propriety and the wisdom of my doing this, but I am so interested in the work that I cannot keep out of it. My friends are all sure I will kill myself with work, but I have noticed that I have more strength and less illness

HERE is a model report sent us by W. Ellis Pennypacker of Burchrunville, Pa.—a model for many reasons, first of which is the remarkable yield received from a patch only 108 x 213 feet in size, and second, because of the detailed way in which he has kept his accounts and presents them. Mr. Pennypacker writes: "This is the exact amount I sold, not taking any account of what was used by ourselves. The prices given are generally wholesale, as I retailed few:

Date	*No. Quarts*	*Price*	*Amt. Recd.*
June 10	16	15 cents	$ 2.40
June 15	37	12 cents	4.44
June 18	112	11½ cents	12.80
June 20	168	10 and 11 cents	14.72
June 22	512	10 cents	51.20
June 24	498	10 and 12 cents	49.85
June 25	417	10 cents	41.70
June 27	549	8 and 10 cents	51.63
June 28	449	8 and 10 cents	41.70
June 29	465	8 and 10 cents	44.48
July 2	532	8 and 10 cents	50.02
July 3	426	8 and 10 cents	42.33
July 8	258	10 cents	25.80
July 6	134	10 cents	13.40
July 9	151	10 cents	15.19
	4721		$461.66

We would like to have anyone show us another plot of ground of equal size devoted to any other crop that turns as much cash into its owner's purse as this is doing.

than any of my lady acquaintances. I have no hired man to cook for and then I have a hay box. The dinner goes into that at breakfast time and comes out cooked and hot when we come in at noon."

The "hay box" referred to by our correspondent is one of those modern conveniences that help to transform the work of the busy housewife, and is known as the "fireless cooker". If our women friends don't know about it, they should no longer remain in ignorance.

This report is typical of hundreds we have received. One man writes us that the bloom of his plants was frozen three times and yet he sold from his patch this year more than $500 worth of strawberries. So, when we get a little blue because that bumper crop we hoped for has been somewhat delayed by conditions with the making of which we had nothing to do, let us turn our thought to the cheerful consideration of certain other facts, among which are: The strawberry business is the safest and surest of any purely horticultural business; complete failure or loss is seldom ever known in that line; when trouble does come to the strawberry grower it is more easily repaired than may be done in the case of any other fruit grower, and at much less cost; and that this sort of weather can't last forever, and we're bound to win out if we simply stand by and do our level best!

ONE difficulty experienced by those who use large quantities of barnyard manure is with the seeds it contains, and strawberry growers will be interested to know that if the manure pile be well composted with kainit—kainit is said to be one of the best mediums, preventing as it does the escape of the nitrogen in the manure, while losing none of its own potash—then the weed seeds will be killed by thousands and the manure itself will be more readily available as plant food.

Spring-Set Thoroughbreds in a Florida Drought

By Joseph Bolt

IT may be of interest to the readers of The Strawberry to read of a test case of thoroughbred plants under proper cultivation. Three years ago this month (April) I set out 2,000 plants. My first experience with strawberries—to set plants in April in this climate—had been unheard of, and to raise them on high sandy land, such as mine, was thought almost equal to madness; but I rather enjoy doing things no one else has done before, and so I buckled into it with might and main. Sometimes I blundered, but never fatally. Anyway my plants lived and grew through the summer and by fall I had plants that my big straw hat could not cover, and the next spring I had the first berries that were shipped from this station, although they were of a late variety—the Brandywine. And such big fellows! We sometimes packed a whole thirty-two-quart crate and not a quart in it with more than twenty-five berries. Well, I had lost some by a blunder and some by bad weather, or it would have been a bumper crop; but it was good as it was.

Last year I was first again. I shipped the first on February 6 and picked and packed up to the first of June. But understand berries don't rush down here so as they do up North, but have ripe, green, bloom and buds on all at the same time. I had intended to plow them under last year, thinking that two crops of that kind were enough for any plants, but when we were done picking the plants looked so good and started to make runners so vigorously that I felt that I couldn't destroy them. So I simply cut out such as showed weakness and let a runner take its place, and worked them and took good care of them as before, and in the fall they looked as if they were going to do better than before.

But then the real test came. Since last October there has been very little rain; the oldest settlers here say they don't know of a time that so little rain fell in six months. The berries on the heavier lands—the real strawberry section—nearly all died. Some had a few berries and some had none, and at this writing nearly all are dead, where we have picked berries from our own vines since February 5. Of course, they were not as large and did not ripen so fast as they would have done if we had had more rain, but the quality was good and we always got high prices.

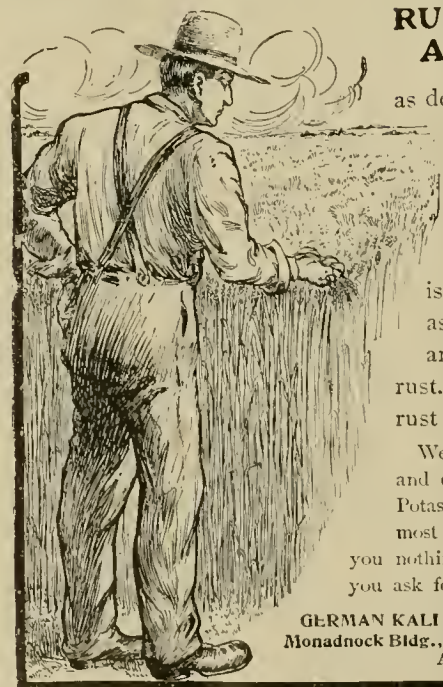
At this writing there are heaps of green berries, from fifty to a hundred to a plant, and they could stand it for a good while yet before they would die. The most trouble is that the leaves don't grow enough in this drought to shade the berries, so a good many get sunburnt before they ripen, but it looks favorable for rain now. I hope it will come. Now for some time every time I go to the station with berries I am asked, "How are your berries?"

"All right; would be better if we had rain, but are doing well under the circumstances."

Finally some of the neighbors came to see, thinking I was "blowing", and they were simply struck dumb, saying they never saw such a sight.

Brooklyn, Fla., April 1, 1907.

THE Society for Horticultural Science will hold its fifth annual meeting at the Jamestown Exposition in connection with the thirty-first biennal meeting of the American Pomological Society, September 24, 25, 26, 1907. Arrangements have not yet been made as to the time of sessions, but the three days' meetings will give ample time for the program of the two societies. The Inside Inn on the Exposition grounds is to be headquarters for the American Pomological Society and since most of the members of the Society for Horticultural Science belong to the older association, arrangements have not been made for separate headquarters. The single topic of plant breeding will be discussed and the program committee promises papers and addresses of merit. The meeting is held late in the summer so that the summer heat will be avoided. The rates to the exposition are low and the routes varied. The exposition will have attractions for all. The several advantages attending the fifth annual meeting of the society should insure a large attendance.



RUST is a Disease Which Attacks Feeble Wheat

as delicate people are always taking cold.

Potash

is the *health* food for wheat, as well as the grain food—makes it strong and vigorous, so that it **resists** rust. Potash checks lodging and rust on the **rich black soils.**

We shall be glad to send you pamphlets and circulars and reports that show what Potash does for soils and crops. These most interesting and helpful books cost you nothing except the postal card on which you ask for them.

GERMAN KALI WORKS, 93 Nassau Street, New York
Monadnock Bldg., Chicago Candler Bldg., Atlanta, Ga.
Address office nearest you.

ONE OF THE RELIABLE FORCING VARIETIES. A FAIR CROP IN SIGHT

The Forcing of Strawberries

ONE phase of strawberry production which appears to be of increasing attractiveness is the growing of potted plants and the production in the winter season of high-quality strawberries under glass. The number of inquiries we receive concerning this line of work steadily grows, and that the work itself is destined to great popularity is not to be doubted. There are many features of this work to be considered, however, before one enters extensively upon it. The cost of production of strawberries in this way is very large and therefore the market may never be considered a popular one. Indeed, the demand for strawberries grown from potted plants must come from those whose wealth make it possible for them to pay high prices for the sake of producing unique and perhaps artistic effects at society dinners. It may be said then, that it is in the neighborhood of cities of considerable size only that a hot-house plant given over to the production of potted strawberries might reasonably be expected to be profitable. It must be borne in mind also that the growers of strawberries in the South are steadily improving their methods and advancing the season of ripening as well as extending it. Last winter Florida was shipping berries to the North in considerable quantities as early as the first of December, and there was no actual cessation of the flow of the delicious fruit from the South from that time on until the Northern-grown fruit was on the market. We have said this much by way of caution, lest the statements one reads so often in some of the prints might lead our friends to see a bonanza in this line of strawberry production.

That the work is interesting, however, and under favorable conditions, such as we have indicated, may be made profitable, there can be no doubt. We therefore are presenting herewith extended quotations from Bulletin No. 231 of Cornell Agricultural College on the forcing of strawberries, which will give to those who contemplate engaging in work of this kind some valuable suggestions. This bulletin treats upon the following points: The varieties best adapted to forcing; the length of time required to mature a crop from the time of bringing in the plants from the cold frame; the results of temperature on the crop, and economy in the handling of the plants. We quote:

A Discussion of Forcing Varieties

Taking up the first question, there have been tested nearly one hundred American varieties, eight French varieties and five well known English forcing varieties. Of this number, but few have been found of value for forcing; and at the present time, the main crop for forcing this winter consists of but three varieties, and these of American origin. Varieties of English origin, popular abroad both for growing in the open and for forcing, appear to deteriorate when brought to this country, rarely holding their excellence more than two seasons, even with careful selection of runners and high cultivation. The French varieties of the Hautboy type, producing fruit of but medium size and of a peculiar musky flavor, are not liked by the average consumer. Again, the long fruiting period of this type of berry is a defect where successive crops are wanted in the same house. The decisive summer peculiar to this country has probably had a tendency to develop varieties that mature crops of fruit quickly, ripening the larger part of the crop within a few days. This habit is one that is essential to a good forcing variety, so that one crop may be gathered within a short period and the plants then all removed at the same time in order that the house may be cleared for the next crop.

At first thought, it would appear that an extra-early variety would be preferable to a midseason or later variety for forcing, but early varieties produce only a small crop of fruits and the berries average small in size. This coupled with the fact that with greenhouse operations one can to a large extent control the seasons and ripen

a crop at will, has discovered the additional fact that the midseason varieties producing large fruits and yielding an abundant crop, are preferable to either the extra-early or late varieties. At the time Bulletin 134 was written, a variety called Bederwood was considered one of the best for forcing, although the berries were only of average size and of rather light color.

Further testing of many kinds led to the discovery of other varieties that forced as well as Bederwood, had larger, more uniform and higher colored fruit, and ripened practically all the berries on each plant at the same time. Among these are Marshall and Glen Mary, the former a strong-growing, perfect-flowered variety yielding a large quantity of fertile pollen and producing fruit of extra size and of a very attractive color. Glen Mary has nearly all the characteristics of an ideal forcing berry, the only fault being that the first flowers to open are almost without stamens, and pollen must be supplied by another variety. If this is done, the berries set readily and swell rapidly. The plants make fine crowns and vigorous root growth and thus are able to absorb a large amount of liquid manure when the fruit is swelling.

President is another variety of recent introduction that has proved of exceptional value for forcing. It is a true pistillate, and, contrary to our past experience with such varieties, is equal or superior to any staminate form yet tested. The habit of growth is all that could be desired in a forcing berry. It is stocky, has big crowns that ripen early in the fall, a strong deep root growth, and fruit of extra-large size and fine dark red color. Each fruit is well colored over the entire surface, and is without the objectionable green tip. The flowers of this variety remain open for several days, which means that if cloudy weather intervenes, pollenization may be delayed until sunny weather.

A minimum amount of pollen is required to set the fruits which swell rapidly and ripen evenly after setting. The berry of this variety is firmer than Marshall or Glen Mary and may be shipped to market much easier. The foliage, while of the large type is not heavy enough to shade the fruits, making it a desirable variety to grow either for table decoration or where individual plants are required to be set before each guest at dinner parties. This method of serving strawberries is very popular, and well-grown plants bearing from four to six high-grade berries command high prices. In our local market they have sold for one dollar a plant and will sell in a large city for from two dollars to two and one-half dollars at Easter time. The accompanying cuts show habit of growth and, to an extent, the fruitfulness of this variety, although the first and largest berries had been picked from each plant before the photograph was made.

FIGURE 1—THE BEGINNING OF GROWTH IN THE COOL HOUSE

At this writing, it is considered that the three leading varieties for forcing are Glen Mary, Marshall and President, each possessing merits of its own.

Growing the Plants

At the time of writing Bulletin 134, it was thought necessary to give the plants several shifts between the two-inch pot that was plunged to receive the runner and the fruiting pot; but it was soon found that with care in handling through the summer, one shift from the two-inch pot direct into the six-inch fruiting pot gave as good results as more frequent shifting. This saves the labor of at least two shifts, and allows root growth to continue uninterruptedly.

FIGURE 2 APPROACHING THE RIPENING PERIOD

Rooting the Runners and Handling the Plants

The practice now is to plunge two inch pots filled with rich soil along rows of virgin plants, i. e, runners that were set early the same season which have never borne a crop of fruit. Then the first and strongest runners from these plants are led over the pots and as soon as they are well rooted and established in the pots they are cut off from the parent plant, the pots lifted and taken to a convenient place where the plants are at once shifted into the fruiting pots.

At this final potting, a soil is used containing a large proportion of sandy fibrous loam. If not of light texture, sand should be added in the proportion of one to four. To this mixture is added a four-inch potful of dissolved rock or ground bone and a three-inch potful of muriate of potash to every four bushels of soil. Good drainage and firm potting are absolutely essential and the latter is secured by using a potting stick to pack the soil in each pot.

After potting, the plants should be plunged to the rim in coal cinders or other cool material and if protected by a frame will need less attention in watering than if unprotected. After plunging, water thoroughly once, then hold water from the pots as much as possible without allowing the soil to become entirely dry—until roots have well started from the first ball of roots—then water as needed until the pots have filled with roots. After this time water but little, giving the plant the same general ripening period it has in the field, thus insuring a large "fat" crown filled with buds.

On the approach of winter, protect from the first few sharp frosts; and when the plants become dormant, protect from snow until they are wanted in the house. Other things being equal, a plant that has a long period of rest and has been frozen hard will give better results when forced, although it is possible to obtain some good fruit from plants that have but a short rest. Only in the matter of one shift in place of three has economy in handling been found. Each successive stage needs great care and close attention.

Forcing the Plants

Care regarding temperature is of first importance through the entire growing season whether the plants are in beds or in pots. Starting with dormant plants taken from the cold frame, heat should be raised gradually from thirty to forty-five degrees by the end of the first week, increasing the heat until the plants are in bloom,

when they should be growing in a temperature of from sixty to sixty-five degrees. From the time pollination begins, the house should range from sixty-five to seventy; and while the fruit is swelling, the heat should never be allowed to fall below seventy degrees. One of the accompanying cuts Fig. 3 shows very clearly the necessity of heat to insure a crop.

The Maturing Period

As to the length of time required to mature a crop of strawberries, the work carried on here leads to the conclusion that from eight to ten weeks are necessary for the best results, although the season may be hastened by hard forcing (pushing the crop) during the last four weeks. It is absolutely essential that the plants be grown slowly during the first half of the forcing period, allowing new roots and tops to form in about the same manner that they do throughout the spring weeks in the open.

FIGURE 3 INFLUENCE OF TEMPERATURE IN FORCING

After root growth is well established, heat may be gradually increased and forcing hastened. If rapid forcing is the order, great care is necessary in the application of liquid manure, as the combined stimulus of excessive heat and quick-acting plant food has a tendency to develop soft flavorless fruits. Heavy firing calls for high temperature and means danger of red spider, the one dreaded trouble of the forced strawberry. Daily syringing of the plants and frequent wetting of the walks must be resorted to in order to hold this enemy in check. It is always safer on this account to bring the crop along without undue haste, allowing the fruits to swell normally, retain their flavor and remain solid.

In order to test the question of temperature on forced strawberries, six plants of four varieties used for forcing in the winter of 1903-4, were placed on a bench in a carnation house where the temperature was held as near fifty-two degrees F. as possible. These plants, four each of Marshall, Glen Mary, Brandywine and Dunlap, were of the same stage of growth as the same varieties that were given the usual forcing temperature, and had been grown and treated identically until the plants were in full bloom, when they were moved to the cool house, while the remainder of the plants were placed in the usual warm house. From that time until the berries on the plants in the warm house were ready for market, the treatment of both lots was precisely the same with the exception of the temperature. This covered pollination, application of liquid manure and attention to spraying foliage when needed.

At the time the photograph was taken, three plants bearing an average number of fruits were selected from the two lots, growing one in the warm and the other in the cool house. In every case where fruit had set on the plants grown at the lower temperature, they were small and hard, only in a few instances growing to the size of an acorn, but uneven in form and poor in coloring.

It may be of interest in this connection to say that while these plants were in this condition, a demand arose for a few pots of berries to be ripe in about four weeks' time; and these same plants among others were cleared of the immature fruits, taken to the warm house, plunged in soil that registered from seventy-five to eighty degrees, and in the required time were ripening from three to five fair sized berries to each plant. The experiment demonstrates that a cool temperature can be employed to retard strawberries, but comparatively high temperature is necessary to a regular normal development.

Look Out for the Cowpea Seed

STRAWBERRY GROWERS who find the cowpea their favorite soil restorer and nitrogen producer will be interested in a circular just published by the Department of Agriculture at Washington, and will do well to follow carefully the instructions it contains. The circular follows:

The continuous wet weather of the autumn of 1906 worked an especial hardship to farmers in connection with the various kinds of agricultural seeds set aside for this year's planting. This is particularly true with reference to seed of the cowpea, the principal leguminous, hay, and green-manuring crop in the States bordering on the gulf and along the Atlantic coast as far north as Virginia, the excessive rainfall causing the seeds to mould and soften.

During ordinary seasons cowpea seed sells for from $1.50 to $2 a bushel, but this year it has readily brought from $3 to $3.50 a bushel. Notwithstanding this high price, the farmer has found that the vitality of the seed has beceme so impaired that only a very small percentage has germinated, and in consequence of this poor quality of seed the crops grown have been thin and most unsatisfactory.

As red clover and alfalfa are not generally grown in the South and the maintenance of profitable agriculture and soil fertility is largely dependent upon cowpeas, this condition has entailed very serious consequences on many southern farms.

The Seed Laboratory of the Bureau of Plant Industry of the United States Department of Agriculture has recently collected samples of cowpea seed from the states of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Arkansas and Tennessee, to the number of 3,706 packages, and these samples have been carefully tested for vitality. The results obtained have been startling.

While a good grade of seed should show a germination of from 95 to 98 per cent, the seed from four states only—Arkansas, Tennessee, Louisiana, and Florida—showed an average germination of as much as 60 per cent, and only four varieties of cowpeas contained as many as sixty live seeds in each hundred—the Iron, Taylor, Whippoorwill, and New Era varieties. In the remaining five States from which samples were secured and with the ten or more staple varieties of cowpeas not named above, the average percentage of germination reached from 49 to 59 per cent only.

In these tests the Iron variety, which stood first, showed a general average of 79.2 per cent, while the Unknown variety

averaged but 52 per cent, the Brown Eye less than 53 per cent, and the Black only 53.6 per cent. After the Iron variety the next best record was made by the Taylor variety with 68.8 per cent, and after that the Whippoorwill with an average germination of 66.7 per cent. Next came the New Era variety with a general average of 64.2 per cent, while the fifth on the list, the Clay variety, dropped to 58.7 per cent in these tests, and the Black Eye and the Red Ripper showed 57.5 and 56.9 per cent, respectively.

According to the figures obtained in connection with the tests mentioned, the Whippoorwill is the most popular variety, with the Clay second and the Unknown third.

Farmers are urged to test seed before sowing in order to determine its vitality and in this way avoid disappointment and serious loss. This testing can easily be done by means of two dinner plates and a strip of canton flannel. One hundred seeds should be counted out from the package of seed which it is proposed to sow, taking the seeds just as they come without making any selection. These seeds should be placed on one end of the wet flannel and laid in one of the plates, while the other end of the cloth and the other plate should be placed over them. On the third, fourth, and fifth days the number of seeds which have sprouted should be counted and in this simple way the percentage of seeds which would sprout if sown in the ground can be definitely ascertained.

Arsenate of Lead

By R. L. Adams

WHEN the gypsy and brown-tail moths were rapidly defoliating Massachusetts, a commission was appointed to discover means for their control and if possible for their extinction. One of the methods which were employed was spraying with stomach poisons. It was found that Paris green, London purple, Scheele's green and other poisons of a vegetable nature were of no use in the fight—the caterpillars seeming to thrive and fatten on that diet; certainly their complexions improved. And in casting about for something which would kill, the commission discovered arsenate of lead.

Since then the use of this product has become more and more widespread until at the present day it occupies a wide field. It is getting to be the standard remedy against the codling moth. It is easily and surely the best poison for all leaf-eating insects and its field may well be extended, especially since Paris green cannot be relied upon for purity and cheapness.

Arsenate of lead, also sold under the trade name of "disparene", is a whitish paste, smooth and clean, resembling white lead to a marked degree. Its white color shows on the sprayed foliage and thereby saves material, at the same time insuring a complete coating. It mixes easily and quickly in water and being fine remains in suspension for a long time—forty times as long as coarse Paris green, and fifteen times as long as the finest, a point certainly in its favor. Being almost insoluble in the water it forms a mechanical mixture and there is absolutely no burning of the most tender foliage. And, last but not least, it sticks! A coating put on in early spring, if allowed to dry, will usually last for several months. Pear leaves sprayed in April have shown plain poison traces in September, after passing through several long rains.

The time and labor, to say nothing of the inconvenience of repeating Paris green sprayings several times, more than offsets the cost of the added amount of lead, so its apparent disadvantage compared with Paris green is really no disadvantage at all: that is, the increased amount of arsenate of lead necessary.

On strawberries the spraying need be repeated only to cover new growths. Put on just before the blossoms open, no damage need be feared from insects which devour the foliage.

There are several good brands of arsenate of lead on the market, and it is much cheaper to buy the prepared article than to mix it one's self. While the latter is possible it is not feasible except when the basic materials, arsenate of soda and nitrate or acetate of lead, are easier to obtain, but even then care must be exercised to get these pure. The Bowker Insecticide Co. of Boston put out a good article called "disparene", and Swift's arsenate of lead manufactured by the Merrimac Chemical Co. of the same city has an extensive sale. The price is eighteen to twenty cents a pound in small lots and fifteen cents a pound in one-hundred-pound kegs.

For use against the strawberry insects a proportion of four to eight pounds to one hundred gallons (two barrels) of water is very satisfactory, the larger dose remaining on the vines the longest. A still greater amount may be used with no danger of burning the foliage, twenty-two pounds being used by some men on the elm against the gypsy moth larvae. This material may be put in the Bordeaux mixture, thus doing away with all expense for applying it.

For a safe, satisfactory, sure poison arsenate of lead "fills the bill."

Salinas, Calif.

FORTY years ago, when Last Chance was at the zenith of its glory as a placer camp, a miner turned rancher and planted a garden patch of spuds, says the Helena (Mont.) Independent. When the camp heard the news it was astounded and for days and days chewed the morsel at every gathering. The fellow was considered crazy for attempting to grow anything except wild hay. That was over forty years ago. This year Anton Horsky, a well-known rancher of the valley, will make net $500 on half an acre of strawberries. The berries rival the famed Hood River fruit in size, flavor, color and keeping qualities. This is the first demonstration that has been made of the possibilities of land in the valley, and it is said that many other ranchmen intend to grow strawberries next year, while others, encouraged by the success of the strawberries, will put in other varieties. Several ranchmen are considering trying cantaloupes, which have been found well suited for certain portions of the state.

ANNOUNCEMENT is made that the American Breeders' association will hold its fourth annual meeting at Washington, D. C., January 28, 29 and 30, 1908. Secretary James Wilson, the president of the association, will speak and other able and prominent men are being secured to take part in the program. The sessions are to be filled with excellent speaking talent and a valued meeting will be the result.

WE are pleased to call special attention of our readers to the advertisement on the back page of this issue of The Strawberry. Farmers who farm to make farming pay are, from far and near, becoming members of the Farmers' Accounting Society and no farmer, however situated, can afford, for the sake of a two-cent stamp, to fail sending his name to this Society so that he may learn all he can concerning an organization the purpose of which is to make it possible for the farmer to know the exact cost of the production of everything he sells.

$ $ $ $ $—$ $ $ $ $

$ Earn a Good Salary $

By taking a course in

$ STENOGRAPHY and ACCOUNTING $

at the

$ Three Rivers Business College $

Some of your friends have our catalog

$ *Why Not You?* $

$ $—$—$—$—$ $ $ $ $

Isle of Pines W. I.

Wanted--A man to go down with me in October and look over my proposition on the Isle of Pines. I have several tracts of land there that can be worked on shares. The Island is a great place for Strawberry growing, also all kinds of Vegetables, Melons, Citrus Fruits, etc., and a great place fur Poultry and Bee keeping.

I want to get in touch with parties who could go with me in October to the Isle of Pines and investigate my offer and proposition.

We can get a special rate on Ward Line Steamers from New York to the Isle of Pines for $30 one way. For more particulars, address

F. M. VanEtten,

238 Delaware Ave., BUFFALO, N. Y.

The Highway of Contentment

By Miller Purvis

SOMETIMES when I am idling my mind runs back to the days that are gone, and when it does the first person who comes into view is Charlie Brown. I suppose we liked each other because we were so very unlike. The general public, or that part of it which had cognizance of us in those days, was united in its opinion of us. We had the reputation of being lazy when we were boys, and as we grew older we were stigmatized as being "triflin,'" or "no account," according to the dialect of the person speaking.

As I look back it does not seem that this bothered us very much. Life in the rather barren Ohio hills was not of the kind that promised much for effort. On the uplands grass grew and sheep grazed, while in the narrow "creek bottoms" little fields of corn, wheat and oats were rotated with clover and pasture. I hated the sight of a sheep, and herein Charlie and I were enthusiastically alike. I did not take an optimistic view of the farmer's life, and again Charlie agreed with me. We both rather liked to wander about the fields and woods and gather trophies of our wanderings.

Herein we differed. I was interested in birds, bees, bugs and reptiles, while Charlie had no eye for anything but flowers, trees and bushes. The vireo, the grosbeak, the woodpecker, the grackle, and even the shy thrush and the cautious crow were my friends in a way. I delighted in the minor tones of the meadowlark or the bubbling merriment of the bobolink. I knew where the robin lived and where the dove built her nest carelessly. Charlie knew where the first flowers could be found in the spring, and the scarce cardinal flower lured him like a siren to her lonely self among the weedy growths of the marshes. He knew where the jack-in-the-pulpits would send their leaves up from the tuber of last year, and where the biggest and sweetest blackberries could be found. He noted the increased size of the trees from year to year and had a knowledge of green things growing that was utterly beyond me.

We were queer in some ways, I suppose, to the older people about us, because we both were insatiable readers. He read botany and I zoology and entomology.

As we grew up to the time when boys must work much and idle little, Charlie developed a fondness for working in the garden, and I could spend a day very pleasantly watching a brood of chickens. About this time Charlie and I parted. My parents moved to a distant part of the country and my subsequent career is of interest to no one. It is Charlie's story I want to tell you, not in my own words, but as it was told to me.

When Charlie and I parted thirty years ago we promised to visit each other often. It was twenty-eight years before I saw him again and almost as long before I had any definite information concerning him. Our days together had become a far-off memory and this affected my mind very much as would a faint perfume. The sweet smell of spring always brought back our days together, but year after year went by and the things of everyday held me in a grip from which I could not break away.

Two or three years ago at the Ohio State fair I met an old neighbor of the days of my boyhood. It required some effort for me to bring myself to his mind. He had forgotten me entirely until I had reminded him of some incidents in my early career that were funnier after all the years than they were just at the time they happened. We fell a-talking of the people in the old neighborhood. I asked about Charlie.

"Charlie's just the same queer chap he allus was," said my old friend. "You know he was allus a triflin' sort of a fellow, moonin' 'round an' putterin' with sech truck as flowers an' garden stuff an' berry bushes.

"When he growed up, I declare to goodness, he'd go 'round the back way to get rid of seein' a sheep, and he didn't take no sort of intrust in farmin' nohow."

"That's about the way they used to farm back on Ginger Ridge," I remarked. "Have they kept it up all these years?"

"Jest the same old way," answered the old man, missing my sarcastic intent; "they raise sheep on the hills an' crops in the bottoms an' I guess it's as good as any way. It's allus suited me an' I'm still livin', you see.

"As I was a-sayin', Charlie didn't take to farmin' an' the hull neighborhood was a-wonderin' whatever would become of him, when he up and got married."

The old man paused for this bit of news to strike in and to give me an opportunity to express my disapprobation; but he was disappointed, for I had lived long enough to learn that worse things might have happened to Charlie.

"Yes, sir, he got married," resumed the old man, "an' 'most everybody was sorry for Mollie James, to think she'd take up with such a triflin' feller. Ol' man Brown—he's dead now—was jest put to it to know what to do with the young couple. You know that place where the Widow Sager used to live—that little place where the creek runs catacornerways acrost the Brennan place?"

I nodded.

"Well, the old woman died that spring and Brown he bought the place an' give it to Charlie. There was six or seven acres of it an' the ol' man told Charlie he could live there an' work on the home farm an' he would pay him a dollar a day for what time he put in.

"The ol' man told me that he expected he'd have to kind o' keep Charlie goin' an' git what work he could out o' him. The place where Charlie an' Mollie was to live wasn't much of a place, but it was better'n nothin', an' they moved in an' began their mortal pilgrimage, as the bible says, without much prospects of nothin'.

"Now you'd natur'ly think Charlie would a-perked up an' took to work, seein's he'd took on himself the responsibility of becomin' a man o' fam'ly; but he didn't.

"The very first thing he done was to borry a team of his father an' turn up a patch o' ground an' plant it to raspberry an' blackberry bushes, when every thicket in the hull country was full o' the things.

"An' he actually planted flowers around the house an' wasted a lot o' time tendin' them when he might a-been raisin' real crops. He sent off somewhere an' got some strawberry plants an' begun a-raisin' of 'em as if he thought he was doin' big things.

"He worked for his father an' kep' himself an' Mollie in stuff to eat, an' he planted out apple trees an' cherry trees ontil you'd a thought he wanted to raise a woods lot on the very ground that the early settlers worked early an' late to get the woods off of.

"He acted redicklus, he did, an' no one knowed it better'n his old dad; but you can't take a growed up man with a wife an' baby an' tan his jacket to make him see things straight; so the ol' man let natur' take her course, as the preacher says, an' took it as a sort of dispensation of providence, because he hadn't brought Charlie up more stricter."

As I recalled the many times when Charlie's father had "tanned his jacket" I wondered what my old friend would call strict bringing up, but I did not discuss the matter with him.

"Well, time went on an' Charlie got to sellin' berries an' truck to the stores an' the tavern and to Judge Windacker's fam'ly and to Dr. Kinney and Squire Moss, an' he managed to make both ends meet, though it was mighty small periaters for a man to be puttin' in his time at. He took more papers 'n the hull neighborhood, an' spent a good deal o' time readin' when he might. ben workin'. He didn't care no more for visitin' an' goin' to town than if there wasn't no such things. At first we pitied Mollie because she was shut up so, but she didn't seem to mind it, an' after while we got to takin' it as a matter o' course an' got used to the way things was goin'.

"Charlie kep' right on growin' more an' more strawberries an' things, an' he built an addition to his house an' put a nice fence all around his lot, an' he got so alfired putterin' that he put in his hull time on that little farm.

"He even got a name for it, an' called it 'Marydell Fruit Farm', namin' it after

Mollie, he said. He got to sendin' berries away to Cleveland an' Columbus, an' even as fur as Toledo an' Detroit. We used to set before Urner's store and laugh to see him goin' by with his little one-horse load o' truck, an' say things about a feller that would spend his time with such stuff when he might a-ben haulin' away two-horse loads o' wheat or oats or wool, an' be a-gittin' something worth while.

"Charlie didn't seem to worry much. T'wasn't his natur' to worry. No man who's willin' to spend his hull time on seven acres, an' hire a lot o' girls an' boys to pick berries, instid o' raisin' crops that need men to work in 'em, is likely to worry much about what his neighbors think of him.

"Charlie kep' a-workin' his garden patch; his children growed up an' went to school, an' allus seemed to have enough to eat, an' Charlie and Mollie dressed as well as if they had plenty o' money. How he ever got money enough to send his boys an' girls away to school I don't, for the life of me, see; but he managed it somehow.

"He went to the state fair every year an' went to picnics an' farmers' institutes an' actually seemed to git money to keep a-goin'.

"Durin' this time Charlie's father died. He'd worked hard for his money an' he didn't want it wasted, so he willed Charlie's share to him endurin' his lifetime an' then it was to go to the children.

"Then Charlie showed he had *some* grit. He never touched a cent of the ol' man's money an' it's laid at intrust ever sence, waitin' for the children. Charlie's a queer feller. I wish't I could manage like he can. He's got a purty place, if a feller jest wants to look at a place. He's built a big house an' keeps a fine team an' puts on a good deal o' style. They's one advantage in triflin' away time like he an' Mollie has. They don't seem to grow old a mite. I was a-sayin' the other day that Mollie and Charlie don't seem much older'n they did ten year ago."

"Then Charlie hasn't done so badly, after all," I said, as the old man paused.

"They've lived," he answered noncommittally. "Yes, they've lived an' got along somehow; but jest think of a man spendin' his time that way!"

My old friend opened his hard-palmed right hand and looked at it; turned it over and looked at the knotty knuckles, contemplatively.

"I've worked all my life," he said, "an' I've done right well. I've dug a farm out o' them hills, an' I guess I've got about as much as most of 'em round our neck o' woods. Sometimes I think things is evened up in this life. I've got more money than Charlie, I guess—though no one knows much about his business—but he's had a better time than I have. Charlie's queer."

"I would like to see him once more," I said, with sudden access of homesickness for the old days.

"He's around the grounds somewhere," said my old friend, and presently we parted.

Going down through the sweet-smelling fruit hall, later in the day, I met them —Charlie and Mollie James. Little Mollie fair as ever, matured into a woman good to see. Charlie ruddy, straight, rounded out some, and not quite as slim of waist as I had known him, but Charlie, without a doubt.

I walked up to him and laid my hand on his shoulder. He turned to look at me and for a minute there was no look of recognition in his eyes. Slowly I saw the light of memory rise. From his eyes it spread over his face and he grasped me by the hand.

"Mollie, don't you know him?" he cried. "Don't you know what loafers we used to be yonder in Harrison county? I'd have known you in Guinea. I hear your raising birds, the bird called the chicken. Saw your name in a premium list and wondered if you were just as no account as you used to be."

"Just the same," I declared. "Too lazy to work, so took up the poultry business. I hear you've never reformed and have been wasting your time on strawberries and things."

"Let's get out o' here where we can talk," he said. "It seems good to see you once more."

We found a shaded place down near the Grant cabin, and I asked him how he had been doing.

"First rate," he said. "Mollie and I took to raising strawberries when we first married. It used to be great fun to have father lecture me and to hear what the neighbors were saying. I concluded that I'd show them a thing or two. I went to live on the little Sanger place—you remember it—down there in the corner by the creek. It had laid fallow for so many years that the soil was just aching to get a chance at a berry crop. Father didn't seem to take to my notions and I had to go slow at first, but I kept pegging away and pulling ahead a little every year. Mollie helped me and it wasn't long until we got a trade started. The thing just grew of itself. First I sold in the town then I tried sending a few berries away. I never offered a berry for sale that was not perfect, and it got so a box of my berries would sell no matter how many others were on the market. It wasn't five years until I was making more money out of that seven-acre lot than father and the boys were making on the farm.

"At first I tried to talk about my business to the neighbors, but they seemed to think it a waste of time, and finally I got tired and said nothing, but kept right on raising more berries and more to the square foot.

"Say, it's worth while to watch a lot of strawberries grow and know your acquainted with every plant in the row. First comes a blossom and then the berry begins to round out and get important and swell up. Every day you can see it grow, and before long it begins to get red on one side and, the first thing you know, it is the best thing that ever grew out of the ground.

"One year I had a full acre of one kind and I got eight thousand boxes of berries from it. Two boxes to the square foot, and those two boxes sold for twenty cents, although it was the best year for berries I ever knew. When I figured up what I'd got off that acre I couldn't help going out and giving a whoop."

"I know," I said, "I felt that way once when every egg in my incubator hatched, but I didn't dare tell any one about it for fear they would think I was lying. It used to make me feel sad only to be able to say I had a fine hatch that time."

"Same way with me," chuckled Charlie. "If I'd gone out and told about that acre of strawberries my credit would have been ruined; but it was good to be able to know that I'd got more money for that single acre of strawberries than any farmer in the county could make from forty acres of farm crops. I had just as much clear money, too, besides keeping about all the boys and girls in the neighborhood out of mischief while they were picking the berries, and giving them a chance to earn money besides. Money didn't use to be plenty among the boys and girls, you remember."

Didn't I? An old-fashioned copper cent was a competence in those days, and the boy who got hold of a half-dime had money beyond the dreams of avarice.

"Funny, isn't it," said Charlie, "how one can raise crops that pay as well as strawberries do without converting a single one of his neighbors to his way of thinking? I've been raising berries for twenty years and making money all the time. We've lived well, the children are in good schools and not one of the neighbors has ever raised enough berries for his own family. Some of them think I starve Mollie and the kids. Others think raising berries is too insignificant a work for a real man, and the good Lord knows what others think.

"Even father never got to the point of thinking I was doing anything worth while. He left my share of the estate to the kids and I've never touched it, as I haven't needed it. I've shown that a little farm well tilled is enough. Raising berries is not exactly a work for invalids and old men, but it does not make a man grow old before his time."

"Suppose everybody would begin to raise berries," I suggested.

"That's been put up to me a hundred times," said Charlie. There is no danger that everybody will raise berries, and if they did I would raise them bigger and sweeter than any one else could, and sell mine the first thing in the morning while

the other fellow would have to wait till mine were gone."

"There isn't much difference between raising berries and breeding poultry after all," I said. "The man who has the best to sell gets the first chance while prices are highest."

"That's so," assented Charlie. "I suppose it's true of everything. There's plenty of room in this world for the man who produces the best, whether he raises berries or poultry, or anything else. The best book sells the best and the biggest berries bring the biggest price, because every man wants to have the best, eat the best, live better than his neighbor and make a better showing. The man who can sell flavored water done up in the shape of strawberries will always find a market if his particular lot of flavor and water is colored and sweetened and flavored a little higher than those of any one else. Health and length of days lie in the berry patch for him who seeks them. I have been all along the way and I know."

"It seems to have been a pleasant way," I said, looking at Mollie, who sat smiling at the earnestness of her husband.

"It's the highway of contentment," said Charlie.

A Buckeye State Report

By S. H. Snow

I HAVE been growing strawberries for several years, fruiting each year from three-fourths to one and one-half acres. This year we did not have what I considered a full crop, the late frosts getting the bulk of our early varieties, but the price held good all through the season, so I think that made up for the deficit in quantity. A berry that has gone through this season and bore a full crop or nearly so, is a good one to tie to.

Well, the old standard Warfield has been my favorite pet (with Dunlap for its mate) for several years, and this year has confirmed me more than ever that it is one of the best, if not the best all-round berry grown. Since I have grown berries I have fruited over thirty varieties; out of these I have sifted my favorite pets, which are Warfield at the head with Dunlap a close second, then comes the following in their order: August Luther, Haverland and Bederwood for early; Glen Mary, Wm. Belt, Brandywine and Gandy for late.

I think this was one of the best seasons to sell berries in this section I ever have seen. I could not begin to fill my orders. Berries were all sold over the 'phone before the pickers could get them off the vines. "No matter about the price, but just bring the berries!" was the cry of my customers. I hope this may be of some interest to The Strawberry folks.

Pioneer, Ohio.

Helpful Hints From Our Folks

HERE are some suggestions from a reader at Kirkland, Wash.:

This is my plan of making a runner cutter and it saves getting on one's knees and pinching them off. Take a steel hoe, an old one will do, and have the blacksmith straighten the shank, and if it is soft tell him to harden it so that it will hold a good cutting edge. Then go along the row and cut them off.

I think my way of setting plants can't well be improved; I set rows twenty-six inches apart and plants (root and top pruned) thirteen to fifteen inches in the row. They are easy to keep clean and very little ground is unused. Some of my plants set the last week in April have ten leaves, and runners have to be cut once a week.

TRUE economy always moves along the line of least resistance, which means, when applied to the market, lower prices. No matte how individuals, seeking to retain a monopoly or a high range of prices, may strive to hoodwink the people, it is true that the man who will put out the best goods at the lowest price will control the market. These reflections are suggested by the attempt now going on by a coterie of lumbermen to injure the business of Gordon, Van Tine & Co , the famous mill-work manufacturers of Davenport, Ia., because that company is able to sell doors, windows, sash, blinds, screens, etc., at prices lower than the uneconomic methods used by the aforesaid lumbermen admits of their doing. We warn these obstructionists who thus try to hinder the natural order that everything they do will serve only to bring out more prominently the great advantages the public enjoys in dealing directly with Gordon, Van Tine & Co. The latter own the standing timber, they own the mills that saw it into lumber, and they own the splendid factories that manufacture it up into finished products. Of course they can sell at lower prices than their competitors—and why shouldn't they give the public the benefits of the economies they thus create by modern methods of production? Better leave this great institution alone, gentlemen. It was the war on them made by country merchants that built up the great mail-order houses of the country; so will all such attacks made upon Gordon, VanTine & Co. react and add only to its reputation as the most important and reliable institution of its kind in the world.

HURST POTATO &
ORCHARD SPRAYER
ON FREE TRIAL.
No money in advance—Pay when convenient. Sprays Everything—Trees; Potatoes, Truck etc. 4 rows at a time—20 acres a day. Doubles Your Crop—extra yield one acre will pay it first season. A boy can operate it. GUARANTEED FIVE YEARS. Wholesale Price (where no agent). AGENTS WANTED. After trial, if you keep it—pay when you can. Special FREE OFFER for first one in each locality. "SPRAYING GUIDE" and full information FREE. Write Today. We Pay Freight.
H. L. HURST MFG CO., 75 North St., Canton, O.
This Sprayer used by leading strawberry growers.

WE are in receipt of the catalogue of Charles E. Fendall of Towson, Md., whose advertisement of the Fendall strawberry appears in this issue. It will be remembered that in The Strawberry for August, 1906, we published the interesting account of Mr. Fendall's discovery of this berry, illustrating it with a photo-engraving of one vine of the variety laden with fruit. Mr. Fendall writes us that further experience with the berry only confirms and strengthens his first impressions of its great value. It is the day of great things in horticultural development, and we welcome everything that points in the direction of improvement.

STRAWBERRIES AMONG THE STUMPS L. R. WALKER'S FIELD, ALDERSON, W. VA.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

WHILE to the person accustomed to growing strawberries the inquiries made by beginners may appear to be unnecessary, it remains true that there are thousands of people whose lives have been so placed that they never have had opportunity to learn the first thing about strawberry culture; perhaps, indeed, they have been brought up on a city street where even grass was permitted to grow sparingly. Thus they are compelled, when engaging in the work of strawberry production, to ask questions of the most rudimentary sort.

Then there are people who have grown strawberries all their lives who do not know the first thing about some of the most essential principles of their growth and culture. Within a month the writer was in a patch of Warfields with the owner. The yield was small and there were many "nubbins".

"What bisexual have you set with your Warfields?" we asked.

"What's that?" inquired the grower who had been in the business for forty years.

Well, you may imagine the surprise with which we learned that this grower knew absolutely nothing about sex in plant life; that to him a Warfield or a Sample or a Bubach were no different from a Dornan or a Bederwood or a Pride of Michigan. So we are glad sometimes when a beginner has the courage to ask us questions that are rudimentary. If the professionals are inclined to scoff at it, all right; but we believe that many people will be glad to read the questions asked by a woman who has the true instincts of the Yankee and whose right to that title is proved by the fact that she writes us from Boston, and perhaps the answers that follow may help some others to understand certain points not clear to them before. She has asked her questions by "steps" as she calls them, so we reproduce them just as they came to us, although the answers do not follow in numerical order:

1. I order plants from nursery spring of 1906.
2. Put these in two separate beds—*a*, fruit; *b*, propagating.
3. Allow *b* to grow as many strong runners as the plants will, while keeping off all bloom.
4. These runners are the plants to transplant for a new fruit bed?
5. When should they be transplanted, fall of 1906 or spring of 1907?
6. When will they bear their first crop of fruit?
7. If they are transplanted in the spring of 1907 should they be allowed to bloom that summer? If in fall of 1906, when?
8. Are the mother plants (those bought and placed here in *b* to form runners) to be left unmoved and should they be allowed to bear fruit in 1907?
9. Why should not these runners be allowed to bear just as much as those which were layered beside original mother plants in fruiting bed *a*?
10. What does the nitrate of soda do for the plants and is it wise to apply it alone while plants are budding for bloom in the spring following the original planting (1907) plants put in in 1906?
11. When should bone meal and wood ashes be applied during this season (1907) to plants put in in 1906—before blossoms form, or after fruit is set?
12. Is it true that wood ashes soften the fruit? Would it matter if the berries are not going to be shipped and only peddled and which of these fertilizers heightens color?
13. Do you mow and burn off plants after the first fruiting season or the second?

If you wish to grow your own plants you should take some plants of each variety and set them in a bed by themselves, which should be called your propagating bed. The bloom from these plants should be removed the same as in the fruiting bed. When the runner starts forming you should lay soil on the runner wire, just back of the node, or little leaf that forms on the runner, spreading the runners out so that each plant will have abundance of room to develop in. This work should continue until about the first of October, and the plants that form after this should be pulled off, as plants that form so late in the season will not make good plants for resetting, unless growing weather continues until very late. In the winter the propagating bed should be covered with mulching of some kind. In the spring of 1908, after you have your ground all ready to receive the plants, you should then go to your propagating bed and dig up the plants and set them where you wish your fruiting bed, keeping all bloom off. The plants which are set in the fruiting bed in 1908 will produce their first crop of berries in 1909. If you leave the mother plants in the propagating bed, these can be allowed to produce fruit, but while digging up the runner plants the mother plants will be injured considerably and will not give a full crop of fruit.

The runner plants in a fruiting bed will produce berries the same as the mother plant, and so would the runner plants in the propagating bed produce fruit if they were not transplanted.

Nitrate of soda is what might be called a stimulant of foliage growth, as it stimulates and increases vegetative growth of plants. The best time to apply nitrate of soda is in the spring, and it should be sprinkled thinly around the plants. Bone meal, wood ashes, and all kinds of fertilizer which becomes available slowly, should be applied early in the spring, and thoroughly worked into the soil before plants are set. Wood ashes have a tendency to make the fruit firmer. Also gives them a higher color.

After the first crop of berries is picked, the plants should be mowed off and the dead foliage destroyed by fire. This should also be done for the second crop.

D. G., Anaheim, Calif. I have a patch of berries from which I am now picking my first crop, but the blight or rust or whatever you call it is causing them (the leaves) to dry up. Will these same plants be any good for the second crop if mowed off and treated in the usual manner and sprayed after new growth starts? Would fertilizer help them?

Burning over your strawberry bed will kill all the fungous spores on your plants and the new roots will start new plants as fresh and free from diseases as were the plants when originally set. Fertilizer would be no help in this case. As soon as the new plants begin to appear after the burning over, keep a careful lookout and upon the first appearance of any form of fungous disease begin to spray with Bordeaux mixture in accordance with the instructions given in The Strawberry.

S. M. P., Woodside, Minn. As my plants are just beginning to blossom it will be the last of July or the first of August before I could mow the vines and cover them with dirt. Would they have time to get sufficient growth before cold weather in this latitude, and if not what shall I do with them?

2. Would it be all right to mow the vines and not cover with dirt? Or not to mow them at all, but as soon as through picking berries to start the cultivator as at first?

Your plants should make fine growth within six weeks from the time they are burned over and although you say the season will be late there is no reason or doubt but that the burning over will do just as well under the conditions which exist this year as they would in a more normal season.

2. It would not be well to simply mow them over and leave them uncovered. Covering the crown with dirt is very essential, as it is this which causes the plants to develop a new system of roots. If you will pull up one of your plants after fruiting time, you will see that it is a mass of dry, wiry fibres. The development, there-

fore, of an entirely new root system is imperative if you would have another crop of strawberries. The new roots will develop just above the old roots, but to encourage this growth you must cover crowns with fresh soil. In short, the thing for you to do this season is just exactly what you would do in any other season, and follow methods of mowing over, burning off and reducing the rows by plowing as we have so often indicated in The Strawberry.

⚜ ⚜

A. M. W., Charlotte, Mich. In the spring of 1905 I set out a small patch of Warfield strawberries, with good fertilizer, for my own use, kept off all blossoms and runners. In 1906 had a nice crop of berries, immediately after fruiting clipped off all foliage and runners and kept them off. This summer I kept off all runners. First picking June 27, and last today (July 19). Strawberries are in hills—some few plants are dying. Why?

2. Can I expect another crop next year with same treatment as last year? When will they run out if treated that way, or will they continue to bear indefinitely?

3. After clipping and working the ground after bearing, would it be proper to manure the ground (stable manure) and work it thoroughly in the soil?

It is rather difficult for us to state the cause of your Warfield plants dying. It may be that some grub or root lice are working upon the roots.

2. To get another crop next year we would suggest that you allow these hills to make a number of runners. This will greatly increase your next crop. After picking the next crop we would turn this patch under.

3. After cutting and burning over the bed and after the rows are narrowed down, you may spread well-decayed manure between the rows and work it in with the cultivator.

⚜ ⚜

Miss I. C., Loveland, Ohio. Will burning off my fruiting bed stop the ants and the other insect which are working at the roots? If not will tobacco tea or cow manure and water? The fine tobacco just seems to drive them to another plant.

The burning over of the fruiting bed after the berries are all picked is very beneficial. It destroys insects and fungous spores, and it also has a tendency to drive the black ants to other quarters. The black ants prefer working in very firm soil, and if you will keep your soil, where the berry plants are growing, well cultivated the ants will not remain in large numbers. The ants themselves do no harm to strawberry plants, but the fact that they are present is evidence that the roots of the plants are infested with root lice. The ants carry the lice from the roots of one plant to another. Strong tobacco tea is quite beneficial in getting rid of the lice. Also tobacco dust sprinkled around the plants has a good effect. We think thorough cultivation and rotation of crops is the best thing you can do.

⚜ ⚜

F. A. B., Belmont, N. H. Do you consider it practicable to grow Dornan, Pride of Michigan and Dunlap when set three feet apart between rows in anything but single hedge?

2. Should a plant ever be allowed to make plants from a lateral or only the main runner?

3. In forming the single hedge each plant is allowed to make two more on each side, in some cases a plant seems stronger than the next one. Is it best to wait until the weaker plant makes runners to fill, or gain time by letting the stronger plant make runners to meet the other?

Heavy foliage makers such as Dornan, Pride of Michigan and Senator Dunlap, where grown extensively, would better be set in the single-hedge row, unless wider space is given them between rows.

2. Lateral runners never should be permitted to develop.

3. Your question is one which will have to be answered by the grower according to the condition of the individual plant. So far as ultimate results are concerned, it is doubtless true that the plant having enough vigor to send out two runner plants before the weak plant could send out one, would give the larger yield. On the other hand, an apparently weak plant at the start sometimes develops great strength and will make strong and vigorous runners, although considerably later than its neighbor.

⚜ ⚜

W. A. J., Bradford, Vt. I have over four acres of newly set strawberries and they are quite badly infested with a small black bug, (I send you a few under separate package.) They are now under the oldest leaves and eat through them, and also eat the new ones as they start. I send two kinds of bugs, one a small black one which are the most numerous, and a larger slate colored one which works more on the crown and are very destructive. Now can you give any information or suggest a remedy for these pests?

The small black insects sent us are beetles, and the larger ones are weevil. The beetles are chewing insects, and may be destroyed by spraying with a strong solution of Paris green. Take ten pounds of Paris green, put over two pounds of lump lime, and over this pour two gallons of hot water. Stir to prevent burning. When thoroughly slacked, add enough water to make forty gallons. One or two sprayings will generally do the work. The larva of the beetle is a small light-colored grub, which works on the roots of the plant, and by killing the beetle you will get rid of the larva. The weevil works on the fruit stems of the plant causing the fruit stems to droop and wilt. The best preventive against these, as well as all other insects, is burning over the fruiting bed after the berries are all picked. Clean and thorough cultivation, rotation of crops is also important, and be sure and avoid taking plants from infested beds. Keep all fence rows and all places adjoining your berry patch clean.

⚜ ⚜

H. S., Osnaburg, Ohio. I have one-fourth acre of strawberries and wish to mulch or cover them this winter and have not the straw, but have mowed a meadow and there is a couple of tons of sour grass on it. Now would this make good mulching?

The sour grass will make an excellent mulch for your strawberries. Any covering in the way of straw or hay or long grass will serve, although the most perfect mulching is wheat straw.

⚜ ⚜

H. E. R., Eugene, Ore. The plants I set last spring grew finely. They were looking well and the ground was clean. The first of January we had a flood (I am on the Willamette bottom) and washed them pretty badly, and then the first of February we had another bad one. It washed all the dirt that was loose and some besides from between the rows, so it left the plants on a ridge from four to six inches high. When it quit raining it turned dry, so I am out of strawberries. Now what shall I do and when shall I do it? I will tell you what I thought of doing, and that is to go on after the berries are gone and plow each row up deep and reset the plants in the same place and get the ground level. What do you think of this plan?

If your plants are entirely covered with soil, we think your method of plowing up the patch and resetting the proper thing to do. From what you say we judge that the soil where your plants are growing is on a hillside or slope. If you have level ground it would be better, as then the heavy rains would not wash the soil over the plants so badly. If your plants are not covered more than an inch or two, the plants will come up through it and make good growth.

⚜ ⚜

P. A. A., Grand Mound, Ia. I find some small light green lice or spiders on the leaf stems of my strawberry plants that are to fruit this spring. Plants look perfectly healthy now; will those lice hurt my plants? If so what can be done?

2. Will it do to spray with kerosene emulsion, or will it hurt the plants?

The green lice you speak of will not do any serious damage. Just as soon as your berries are all picked, mow the foliage off and burn the bed over. This will destroy the lice as well as other insects.

2. Kerosene emulsion would destroy the lice, but the trouble is that the lice

work down in the crown, hidden away in such a manner that it is almost impossible to reach them with the spray material, and the kerosene emulsion only kills such lice as it comes in contact with. The best preventative against lice and all other insects is the burning over of the bed after fruiting season. Clean cultivation is also very important. Always avoid taking plants from infested beds.

⚜ ⚜

R. H. S., South Harwich, Mass. I run a steam plant using soft coal and from time to time scatter some of the soft coal ashes over the droppings in the poultry houses. Is this detrimental to the droppings as a fretilizer on strawberry plants.

Coal ashes contain very little available plant food. Their principal advantage is in the fact that they have a tendency to loosen heavy clay soil, but there is not enough plant food in soft coal ashes to justify the use of them for any other purpose more than that above mentioned. If you can get dry dust or land plaster either will absorb and hold the nitrogen while ashes of any kind tend to set the nitrogen free.

⚜ ⚜

P. A. A., Grand Mound, Iowa. In layering runners when one is found to have taken root in a wrong place, should it be lifted out and reset, or would it be better to remove it and layer one that has no roots?

2. What should be done to grow a few extra large berries for exhibition purposes? I have the Wm. Belt, Pride of Michigan and Senator Dunlap to work with, on a slightly sandy loam which is probably not any too rich. Would removing all but a few berries on each plant make them grow larger?

3. Although many berries died on the vines, which I think was caused by five days of rainy and sultry weather at the beginning of picking (am I right?), I still had a good crop of very large berries that sold at two and one-half cents per quart above local market, and at that price my berries sold first. When I brought in my first crates of berries remarks could be heard all around such as, "Gee! what whoppers! Say, aren't those beauties! Never saw such berries in my life. How do you grow such fine berries?" My answer would invariably be, By setting good plants and cultivating them in an up-to-date way. Just as much difference between my strawberry patch and the average patch as there is between those berries and the average berry.

If a strong runner plant has taken root to one side of the row, it is best to take it up and layer it where you want it.

2. The Pride of Michigan and Wm. Belt varieties will grow large showy berries without much extra work. In growing exhibition berries some growers cover the vines with cheese-cloth during the heat of the day. The time to do this is when berries are about half-grown, and they should be covered every day the sun shines until the berries are ripe. Thinning the berries a dozen or fifteen to each plant will help to increase their size.

3. A large amount of rain and hot sun during the ripening period will sometimes cause berries to rot and die on the vines. We are pleased to learn that you have had such a good crop of berries and that you have received big prices for them. Your answer to those inquiries as to how you got such big berries was a good one. It certainly does pay to set well-developed plants and give them good care.

⚜ ⚜

ADDISON GREENLEE, of Sandy Lake, Pa., writes us under date of July 23, 1907: "I will give you a sketch of my experience with the plants I set in May, 1906. June 27 last the big red fellows began to come in a way that surprised all of us, and the season lasted until July 19. During this time we were busy night and day. My patch consisted of 59 x 280 feet, and we picked 2,003 quarts of berries from it. We followed instructions given by The Strawberry, and we know now that it is all right. We burned the patch and got it plowed and at this writing it looks as if we would not see a plant again." It does take some faith to burn over a patch that yielded so finely, but it is the sort of faith that always pays.

⚜ ⚜

THE summer meeting of the Wisconsin State Horticultural Society will be held at Shiocton, August 28, and promises to be of exceptional interest. The Strawberry urges all its readers who are interested in the progress of small fruits or in horticulture in general to attend such gatherings as this whenever opportunity presents itself. The experiences of successful growers is one of the most valuable aids to others, and association with horticulturists always is a source of delight and edification.

⚜ ⚜

THE ROOF BOOK covers the whole subject of roofs for residences, barns, cribs, poultry houses, outbuildings, stores and factories. You can get a free copy by simply asking for it. With the aid of the illustrated Roof Book, you can lay a waterproof and fire-resisting roof on any kind of a building and be absolutely sure of a handsome, economical and satisfactory job. No-Tar Roofing is cheaper and better than shingles, steel, iron and other roofing material. Keeps any building warm in winter and cool in summer. Unsurpassed for siding as well as roofs of poultry and stock buildings. It is entirely free from coal tar. Non-odorless, vermin proof. In addition to the free Roof Book the Heppes Company will send you free samples of No-Tar Roofing, and tell you ten ways to test it and prove its superiority. Send postal for Free Roof Book to the Heppes Company, 2930 Fillmore street, Chicago, and get posted on the roofing question.

FALL-FRUITING STRAWBERRIES

PAN-AMERICAN AND AUTUMN

strawberry plants that have been transplanted in pots or otherwise can be set as late as August 15 and produce fruit the following September and October. Pot rooted plants of the leading spring-bearing varieties can be furnished including the new **"Golden Gate"** which won $23 on 7 (seven) quarts at the Massachusetts Horticultural Exhibition in 1906. Send for circular.

S. H. WARREN, WESTON, MASS.

CLASSIFIED ADVERTISING COLUMN

CATTLE

PURE-BRED HOLSTEIN BULL for sale, ready for service. Born April 2nd, 1906. Send for pedigree, color markings and photograph. Fine animal. Price reasonable. Must sell quick. Madison Cooper, 100 Court St., Watertown, N. Y. 8

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

FARMS AND LANDS FOR SALE

FOR $1,000, desirable home in Stoughton, Mass. House containing two tenements—6 rooms and 4 rooms. One-half acre of land, trees and shrubs, valuable asparagus bed, good market. Less than a mile from post office, not far from steam and electric cars. George H. Porter, Stoughton, Mass.

FOR SALE—rent or half interest: Twenty-five acres, all new land, very productive for fruit, garden, strawberries and poultry. Fair improvements. Good chance for lady with some capital and some knowledge of poultry. L. C. Stifler, Box 115, R. 4, South Haven, Mich. 8

IF YOU WANT TO SELL, trade or buy a farm, send full description of what you have or want, with 25 cents, to the Farmers' Want Journal, Dept. 88, Kansas City, Mo., and we will advertise it before 30,000 buyers and sellers and send you a copy of the paper. 10

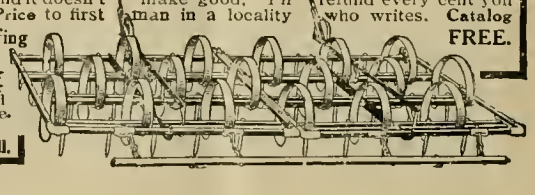
THE finest small fruit farm for sale in Mahoning county. Manasses Flohr, New Springfield, Ohio. 9

Throw Old-Style Harrows on the Junk Pile!

Naylor 2-in-1 Harrow Does the Work Better in Half the Time

What's the use of going over your fields **twice when once over with my Combination Spring** and Spike Tooth Harrow will do the work and do it **better?** This **2-in-1 Harrow** makes a perfect seed-bed in half the time and with half the labor of man and team required with old-style harrows and drags. The 2-in-1 **turns up the earth** and **pulverizes it AT THE SAME OPERATION.** The little picture at the bottom tells part of the story. My Catalogue tells more of it, and hundreds of farmers all over the country are telling the rest of the story. You ought to hear them praise it. **My Harrow saves so much time that it pays for itself in 7 days' use.** It's a light puller. It makes as fine a seed-bed as you ever saw. If you order one and it doesn't "make good," I'll refund every cent you paid me. **Special Confidential Price** to first man in a locality who writes. **Catalog FREE.**

Naylor's Flint-Coated Rubber Roofing
$1.45 and up per Square of 108 Sq. Feet.
3 different weights to select from. For all kinds of farm buildings. Steep or flat roofs. Guaranteed. Nails and cement with every roll. Samples **free.**
J. R. Naylor, NAYLOR MFG. CO.
4 Hillgrove Ave. La Grange, Ill.



We Want Every Reader of

THE STRAWBERRY

To be an Active Agent for

The Strawberry

READERS know how good a thing this magazine has proved itself to be, and can tell others about it in the most effective way. In addition to the satisfaction you will get out of doing a good thing for your neighbor and for us, we will pay a liberal commission on every subscription secured.

The Kellogg Publishing Co.

THREE RIVERS, - - MICHIGAN

Join Our Society!

THE FARMERS' ACCOUNTING SOCIETY

Accounting to make Your Farming Pay
Systems to show what Pays on the Farm

THE FARMERS' ACCOUNTING SOCIETY for Farmers, Fruit Growers and Stock Raisers was organized to meet the demand on part of the progressive and ambitious farmer for installing upon the farm and ranch the same **Up-to-date Business Methods and Accounting Systems** as are today being used by all money making and modern manufacturing and commercial enterprizes. Methods of Cost Accounting, Modernized Bookkeeping and improved Accounting Systems have within the last ten years shown themselves to be so advantageous and profitable that the big money making concerns of today find them an **absolute necessity.** The manufacturer positively could not do without them, no more can the farm be run at its best without these systems. Manufacturing Enterprizes and Mercantile Establishments have spent thousands of dollars to educate Cost Accountants and to install thorough accounting methods. **WHY? BECAUSE IT PAYS.**

Why not the Farmer take Advantage

of the SAME SYSTEMS AND DERIVE THE SAME BENEFITS FROM LEADING BUSINESS MEN AND EDUCATED COST ACCOUNTANTS

FARMING itself is just as much a business as is the manufacturing of farm implements for farm purposes. Success in farming does not depend upon hard work alone. Success in farming depends, also, upon good common sense, up-to-date business methods. The implement manufacturer produces drags, drills, plows, cultivators, etc. The farmer produces wheat, oats, butter, eggs, cattle, hogs, cotton, tobacco, etc. By means of improved accounting and cost systems the Implement Manufacturer knows, to a cen·, the cost of each article he sells. **Why Shouldn't the Farmer be in possession of the same Information in regard to the Cost of his Product?** Wouldn't you like to know exactly how much money you lost or made last year on your hay, your cattle, your corn, your fruit and every other article you produced? Wouldn't you like to stop raising those things upon which you are making little, if any, profit and put in your time upon those products which this Society's System of Books and Cost Accounting shows have paid well? Membership in **The Farmers' Accounting Society** will put you in possession of all this information. **The Farmers' Accounting Society is an organization for the purpose of introducing and installing upon the Farm and the Ranch the same Modern, Improved, Business and Cost Accounting Methods used by all Successful Manufacturing and Mercantile Institutions of today.**

The Plan of the Society

IMMEDIATELY when application with membership fee is received at the Home Office there will be mailed to the applicant a certificate of membership together with an Information Blank which, when it is filled out by the member will give to our expert accountants at the Home Office the necessary information for furnishing, opening up and starting the books before they are sent. Together with the books and accounting system will be mailed personal and explicit instructions as to how to keep them. At the close of the year each and every member will be instructed as to how to close his books and to know exactly upon what and how and where he made or lost his money. Each member will be furnished with a course of instruction in the latest improved and most thorough, up-to-date business methods and cost accounting systems, also a Membership Certificate entitles the holder to free instruction at any and all times relative to any question that may arise pertaining to his general Cost Accounting or Individual Bookkeeping System.

Responsibility, Reliability and Guarantees

WE invite fullest investigation as to our trustworthyness and reliability and are at all times willing and pleased to furnish bank or commercial references. We **guarantee** that the work at the Home Office is conducted by prominent, practical Cost Accountants and Expert Bookkeepers who are engaged not only in our work but who have devised and installed methods and systems for Cost Accounting in some of the country's largest and most prominent manufacturing concerns the names of which will be cheerfully given upon request. We **guarantee** that the books and forms we furnish are of a quality, description, binding, completeness and value such as could not be duplicated in the open market for a price as small as the membership fee to our Association. And we **guarantee** that the same equipment and Cost Accounting information furnished to the members of our Association has cost many manufacturing and mercantile concerns (whose names we can furnish) from five hundred to one thousand dollars to install.

We have only told you a few things regarding the good this Society can do you, not only will it benefit you, but it will also afford to your children a business education. **Send your name and we will mail you information in detail. WRITE TODAY.**

The Farmers' Accounting Society

118 Portage Avenue. **THREE RIVERS, MICH.**

September 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry—but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Genuine Made-to-Order PAINT

I Ship my Paint in extra size Gallon cans—guaranteed to contain full measure.

These cans are dated the day the paint is made—*your* guarantee that the Paint is absolutely *fresh* when you get it.

Out of any six-gallon order or over you may use two gallons on your buildings.

If it is satisfactory, use the balance. If it *isn't* satisfactory, return the balance. I'll refund all the money paid—pay transportation both ways—and the test shan't cost you a cent.

Making Paint fresh to order on a big scale for the individual user enables me to offer a *better* paint—at a *lower* price—than any Mail-Order House or paint company in the United States.

Don't think of buying Paint anywhere until you get my proposition.

I can save you some money on a paint that's bound to please you—because if it doesn't please you, you can send it back after you have used two full gallons.

Won't you write today for my Big Paint Book and other printed matter! It is sent FREE—together with sample colors to choose from. Just send me a postal with your name and address—and do it *now*—while it's on your mind.

84 Cts. Per Gal. Full Net Measure.

FREIGHT PREPAID

Free Two Full Gallons To Try

O. L. CHASE, The Paintman, Dept. U, ST. LOUIS, MO.

THIS COMPANY

does a general real estate and load business. A specialty of looking up good farming lands and locating eastern people on them; let us hear from you—we can serve you.

EUREKA LAND CO.
411 Buchanan Bldg., Portland, Oregon

STRENGTH OF Page Fence

Stock or runaway teams may run into a Page Fence—or trees may fall across and crush it—but when the pressure is gone the fence will spring back to its place uninjured, because the horizontal bars in Page Fence are made of Steel Spring wire, coiled under high tension—give and take up just like a spring. Our interesting catalog tells more features about Page Fence. Write for it.

Page Woven Wire Fence Co.
Box 1017, Adrian, Mich.

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 68 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents per year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block. Syracuse, N. Y.

Wall Flashing—Roof Book, page 18, tells how to make it.

Over Old Shingles—Roof Book, page 5, makes it easy.

Chimney Flashing—Roof Book, page 15, tells how to do it.

No-Tar Roofing

Defies Time, Water, Sparks, Cinders, Wind

"No-Tar" Roofing has a surface as hard as flint—it is flint! Can't catch fire from sparks or cinders. It's as flexible as rubber—and absolutely waterproof. It's tougher than leather. Costs less and lasts longer than shingles, iron or steel. Won't run in the hot sun. The building that has a "No-Tar" Roof protection will last longest.

Accepted by all Fire Insurance Companies, who charge 25 per cent less for insuring buildings protected by "No-Tar" Roofing than for buildings with shingle roofs.

For Store Buildings and Factories "No-Tar" Roofing is far more durable and satisfactory for flat or steep roofs than tin or gravel roofing. Will not rot, rust or run.

For Barns and Outbuildings "No-Tar" Roofing is made in various weights, for all sorts of buildings. Nothing better or cheaper for **siding houses, outbuildings**, etc. All joints water tight. "No-Tar" Roofing keeps stock and poultry snug, safe and warm in coldest weather. Quick and easy to lay. Exceedingly popular among farmers, stock raisers and poultrymen.

For Houses "No-Tar" Roofing will add immensely to the appearance of your residence. Use it on your new house or cover the old, leaky shingle roof with "No-Tar" Roofing and avoid disaster from water or fire. "No-Tar" Roofing is a non-conductor of heat or cold. Keeps your house warm in the winter and cool in the summer. Try it on your porch or kitchen.

Free Samples to Test When we send you the Free Sample of "No-Tar" Roofing we will tell you ten ways to test it and prove its superiority to any other roofing.

Free Roof Book This book tells "How to Do Your Own Roofing." Tells how to make Valleys, Gutters, Flashings, etc. How to Measure a Roof. Explains the whole roofing proposition. We send the book FREE, postpaid, on request. Get "No-Tar" Roofing from your local dealer. Special nails and cement FREE.

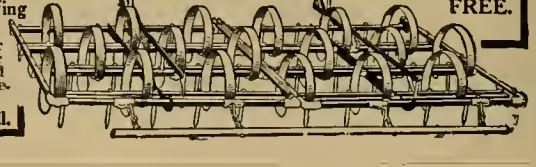
The Heppes Co., 2932 Fillmore Street, Chicago

Dealers, Attention—Write for FREE PLAN, by which you can quickly build up a profitable Roofing Department.

Throw Old-Style Harrows on the Junk Pile!

Naylor 2-in-1 Harrow Does the Work Better in Half the Time

What's the use of going over your fields **twice** when **once over** with my Combination Spring and Spike Tooth Harrow will do the work and do it **better**? This **2-in-1 Harrow** makes a perfect seed-bed in half the time and with half the labor of man and team required with old-style harrows and drags. The **2-in-1 turns up the earth and pulverizes it AT THE SAME OPERATION.** The little picture at the bottom tells part of the story. My Catalogue tells more of it, and hundreds of farmers all over the country are telling the rest of the story. You ought to hear them praise it. **My Harrow saves so much time that it pays for itself in 7 days' use.** It's a light puller. It makes as fine a seed-bed as you ever saw. If you order one and it doesn't "make good," I'll refund every cent you paid me. **Special Confidential Price** to first man in a locality who writes. **Catalog FREE.**



Naylor's Flint-Coated Rubber Roofing

$1.45 and up per Square of 108 Sq. Feet. 3 different weights to select from. For all kinds of farm buildings. Steep or flat roofs. Guaranteed. Nails and cement with every roll. Samples free.

J. R. Naylor, NAYLOR MFG. CO.
4 Hillgrove Ave. La Grange, Ill.

$11.25 for this Big Handsome Nickel Trimmed Steel RANGE

without warming closet or reservoir. With high warming closet, porcelain lined reservoir, just as shown in cut, **$17.35.** Made with large square oven, six No. 8 cooking holes, regular 8-16 size—body made of cold rolled **steel plate.** Burns wood or coal. All nickel parts highly polished.

TERMS are the most liberal ever made. You can pay after you receive the range. You can take it into your own home, use it 30 days, if you do not find it exactly as represented, the biggest bargain you ever saw, equal to stoves sold at double our price, return it to us, and we will pay the freight both ways.

SEND A POSTAL CARD and we will mail you **FREE** our new 1907 and 1908 stove catalogue, describing this handsome steel range, also the most complete line of stoves and ranges in the world. Large illustrations, full descriptions at prices much lower than any one else can make you. Buy direct from manufacturers and save money.

WRITE TO-DAY for our new illustrated **Stove Catalogue No 5222** We will save you money. No delay in shipping. Read the most wonderful stove offers ever made. Most liberal terms ever offered, tells how to order.

MARVIN SMITH CO. CHICAGO. ILLINOIS.

Entered as second-class matter at the Postoffice at Three Rivers, Michigan

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 9 Three Rivers, Mich., September, 1907 $1.00 a Year

MEN WANTED! That is an old cry, but never was it more insistently and emphatically uttered than now. Men for the shops, men for the farms, men for the great enterprises like the Panama canal and the great water system that our metropolis is to construct for its millions—a gigantic canal that will carry the cold and sweet and healthful waters of the Catskills down to the thirsty throats of Gotham. So great is the cry for men that we sometimes wonder what has become of them, and why it is that so few are at hand to take advantage of the opportunities opening up to them. We read that there are in the state of New York alone 12,000 abandoned farms, and we all know that New England in some of its parts presents a scene of desolation and impoverishment, with its deserted farm houses and abandoned lands. Men are wanted everywhere.

AN IDEAL MOTHER PLANT

Next month there is to be held at Syracuse, New York, a convention of public-spirited folk whose purpose it is to devise ways and means to re-people the deserted farmsteads of the East and bring back to productivity the lands once so fertile, so ruthlessly robbed, and now so necessary to the prosperity of the country. Whether this convention will accomplish much in these directions will depend in large part upon the character and purpose of the men composing it. But every citizen who thinks of the future of his country and who realizes the economic loss such conditions as these abandoned farms signify will hope that the convention may be the signal for a movement all along the line that shall take thousands and hundreds of thousands of good people out of the cities and towns and establish them in homes of their own upon the land.

Here is where we particularly want men, and it is under such conditions that we are sure to develop the very best order of men. And if the intelligent citizenship of the country only realized how great is the opportunity that is represented by the conditions that are to be found in New England and New York and in portions even of Ohio, Pennsylvania, and Michigan, there would be no need of a convention to start the homeless men of the country back to the land. We may speculate upon the causes that led to the abandonment of many farms in the country, East and West, and we may discover and name many of them, but among the most potent was the fact that for a long period of time farming in this country was carried forward at so small a profit to the farmer as to discourage him, and the social life of the farm was so barren of pleasure that there was nothing to attract him to it. With both profit and pleasure absent it is not strange that the younger generation declined to follow in the footsteps of their parents, and the so-called abandoned farms were, in many instances, not deserted by the men who actually had "farmed" them, but when these passed out of life their children simply refused longer to remain.

Speaking broadly, this desertion of the farm was accomplished before the new and brighter day that has come to agriculture since the agricultural college and experiment station were created and the nation and the several states, through their departments of agriculture and societies agricultural, horticultural, livestock, and others, were created and began to show the people that agriculture—the tilling of the soil and the breeding of animals—was, as George Washington said it was, "the noblest occupation of man." To-day agriculture is prosperous, the man who farms well, or grows good fruit, or raises fine stock, or sends fresh eggs and good butter and rich milk to market, finds instant sale for all and more than he can produce of these desirable things. More than that, the "mossback" and the "hayseed" are become caricatures of a time gone by. Once in a while we see a reminder of these spectres of the past, but in the main the farmer is taking his rightful place among his fellows—that of leadership.

And the farm? It is coming to be the most attractive place in the world. Situated upon a trolley line, with telephone connecting with the outer world, it is of easy access to the town without the disagreeable features of the town. While in many of the less important cities of the country the citizen still must go to the postoffice for his mail, the farmer has his mail delivered

at his gate every day of the year save the Sabbath. Domestic science has entered the farm home and sanitary conditions and health have followed. Music and art and literature contribute the richest of their great gifts to the farmer and his family, and no other man in town is so fortunate as he who has a rural friend the hospitality of whose home is open to him!

The Strawberry believes that under such conditions it is only a question of time when the abandoned farm in this country is to be a thing of the past. From men and women who are engaged in strawberry growing all over the country come the most enthusiastic reports of the enjoyment they are finding in their work. It combines profit and pleasure so perfectly as to insure their continuing in it and possibly expanding their fields to commercial importance where the work was begun with only the home supply in mind. And we have no doubt that this same fine spirit of optimism extends to every branch of soil culture and animal husbandry, for we find the same cheering word in all the magazines and papers devoted to the soil and to life in the country. Even the townsfolk are catching this spirit, and the back yard is being transformed into a miniature farm, often with such success as to make the professional have a thought for his laurels.

So we may confidently look forward to an end of the abandoned farm difficulty. New York, with her great cities and expanding industries, ought to be the ideal state for the farmer, especially for the truck and fruit farmer. Those 12,000 farms no doubt soon will be inhabited and with a more intelligent, more progressive and happier people than ever dwelt upon them before. The isolated farm shut out from association, remote from markets and unscientifically cultivated, never could compare with what we are having today in many sections and soon shall have all along the line—farms that are conducted with the intelligence with which an industry of large importance is managed, and so situated that the farmer may enjoy all the comforts and social advantages of his city fellow. The Golden Age of the Soil is just beginning!

⚜ ⚜

THE Fifteenth National Irrigation Congress which meets in Sacramento, Cal., September 2 to 7, is a gathering which will attract a great deal of attention throughout the western half of the continent, the purposes which it serves being to draw attention not only to the necessity of irrigation, but to the methods of redeeming vast tracts of unwatered land that exist in the Western states, a matter of much more than local importance. It has a bearing of the greatest economical importance to the nation at large. The four prime objects of the congress in the official statement are to "save the forests, store the floods, reclaim the deserts and make homes on the land." These are objects that command universal interest, and it is hoped the congress is to be controlled by the element that looks disinterestedly in the direction of the public good. Too often in the past the land-grabber has been able to defeat positive expression by the congress when he did not have the power to secure just the results he himself sought. He should be forced to step down and out.

⚜ ⚜

Save the Fertility in Weeds

RECENTLY the Minnesota Experiment Station has issued a bulletin (No. 65) that is so suggestive we publish the following extracts from it. Of course, our readers will understand that they must see to it that the plowing under of weeds be done before the weed seeds have become matured, as to do so after the seeds were in a condition to propagate their kind would be somewhat on the order of planting dragon's teeth to multiply and destroy you. The bulletin says:

On many farms weeds have been one of the causes of a decline of fertility. In most of the weeds there are larger amounts of nitrogen, phosphoric acid and potash than are found in a corresponding weight of grain. When a poor stand of grain and a rank crop of weeds are harvested the soil is robbed of more fertility than if a heavy crop of grain had been produced. The weeds are harvested with the grain and the weed seeds sold from the farm with the grain, or rather given away as dockage, which results in a loss of fertility from the land. The stronger feeding weeds appropriate the available plant food which belongs to the grain crops. Weeds are also capable of feeding upon cruder forms of food than are the grains, and when the weeds are harvested along with the crop the stock of available plant food is reduced.

If weeds could be plowed under before seeds develop, and left to rot, the fertility would not be lost, and the weeds would be useful in preparing the way for the more delicate feeding grain crops. With a good system of green manuring this can, in part, be accomplished, and the weeds be used as a soil-digesting crop. The fact that some weeds take more fertility from the soil than an average grain crop may be observed from the following table, which gives the pounds of the three plant food elements per ton of material, and also the amount removed in an average acre of wheat.

	Nitrogen Lbs.	Phos. Acid Lbs.	Potash Lbs.
Wheat, 20 bus., with straw	35	20	35
Mustard (entire plant) . .	65	26	37
Pigeon grass	35	20	45
Wild barley	40	20	40
Wild oats	30	18	30

On some farms the soil is compelled to stand the drain of two or three competing weed crops, which, with the scant grain crop, results in the loss of a larger amount of total plant food than if a heavy yield of grain were produced. When

Send For Our Stove Book

WHY NOT GET THE BEST and SAVE FROM $5 to $40 ?

You know that there must be a big difference between the factory price and the dealer's price on a good stove or range.

Why not save that difference and keep that extra profit in your pocket?

You know that there must be a big difference between a strictly high-grade stove, made of the best materials by expert workmen, and a "cheap" stove made of scrap iron by inferior workmen.

Why not get the best you can find—especially when you can buy it at the actual factory price?

That's exactly what we offer you:

"A Kalamazoo Direct to You"

TRADE-MARK REGISTERED

A Stove or Range of the highest quality at actual Factory Price on 360 Days Approval.

You cannot secure anywhere a better stove or range than the Kalamazoo—no matter how much extra you pay. We guarantee that, under a $20,000 bank bond and give you 360 days in which to prove it yourself.

Our first idea is to make the best stoves and ranges that human skill and experience and honest workmanship can produce from the best procurable materials.

That's why we use only the highest grade pig iron, and a better grade of steel than any other stove manufacturer in the United States.

That's why we employ the most skilled workmen in the business, and maintain one of the best equipped, most modern stove factories in the world.

And that's why the Kalamazoo line has become so famous as fuel-savers, as good bakers and quick heaters; and why they last so long and give such good satisfaction.

At the same time our system of manufacturing and selling direct is such that we save you $5, $10, $20 and in some cases as much as $40 on every purchase.

You cannot get a better at any price. The Kalamazoo is as good a stove or range as man can make—and you save from 20 to 40% in buying it.

And don't forget: you get your money back if it is not in every way exactly as represented.

We pay the freight

and ship all Kalamazoos blacked, polished and ready for immediate use. Any man can remove crating and set them up.

Send Postal Today For Catalogue No. 348

Compare Kalamazoo Quality and Kalamazoo Prices with others—and save your money. Our line is complete, embracing stoves and ranges of all kinds for all domestic purposes—for the home, school, church, halls, lodge rooms, etc. Hotel ranges for restaurants, boarding houses, clubs and camps. Gas stoves and ranges for cooking and heating—all sold at factory prices.

KALAMAZOO STOVE COMPANY, Manufacturers, Kalamazoo, Michigan.
Original "Direct-to-user" Manufacturer. Beware of Imitators.

Kalamazoo Royal Steel Range, one of many styles—exceptionally economical of fuel.

All our cook stoves and ranges are equipped with patent oven thermometer, which saves fuel and makes baking and roasting easy.

Kalamazoo Radiant Base-Burner. Positively the best bargain ever offered in a heating stove.

weeds take possession of the land, the weaker feeding grain crops are compelled to compete with the stronger feeding weeds, and the result is survival of the stronger. Weeds thrive where wheat would fail, because of the difference in the power of assimilating food. Weeds may be said to possess strong digestive and assimilative powers, while wheat and flax possess weak digestive powers; hence weeds are capable of exhausting the fertility of the soil more rapidly than grains.

Fall Setting Once More

THE number of inquiries that come to us concerning fall setting of strawberry plants increases notwithstanding the explanations given in these pages as to the reasons why this method should not be followed. We are therefore glad that we can let another writer on horticulture answer these inquiries, and so quote from A. B. Sibert of Rochester, Ind., who, writing in the National Fruit Grower for August, says on that point:

"In reply to several inquiries I will again say, set strawberries in March, April and May; never in the fall. Fall-set plants have no time to set new plants and are frequently so injured by hot, dry weather that they are unable to become well rooted. A plant set in the spring will produce from its runners ten, twenty or thirty new plants, each as good for fruiting as the parent plant, and you will have ten, twenty or thirty times as large a yield as if the same number of plants are set in the fall.

"In Florida, Louisiana and other portions of the South late fall setting is quite common, because labor is cheaper there and results are sometimes equally good, but our climatic conditions are not suited to such work and although I have experienced and observed many failures from fall setting in our latitude I never experienced or knew of a single success."

On other points brought out by an inquiring subscriber, Mr. Sibert has the following to say:

"I wonder why the gentleman cut the runners until July 15. Why not let the first runners set new plants until you have a good row and then cut the late runners? If you cut the first runners and a drouth sets in during mid season you are almost certain to have poorly-set rows, and even if late rains do fill these rows many of the plants will not have time to develop fruit buds before freezing weather sets in, and you will wonder next year why so many plants have but one fruit stem, or no fruit stem at all. Late rains here last fall filled the rows of most varieties fairly well, but there was general complaint of barren plants this season. I suffered but little from this cause and I attribute it to the fact that I always instruct my help to carefully guard and guide the first runners. I am aware there is good authority for cutting the first runners, but the advocates of that method are growing fewer year by year and I would strongly advise the other plan.

"Four inches of coarse straw is not too much for a winter mulch, but I would fear to put on four inches of fine broken straw, "half chaff". Such mulch is sure to pack and exclude the air, and injury to the plant ensues. I believe it was the open winter with packed mulch that caused the stem casing to decay. I would also suggest that as soon as the ground is frozen sufficiently to bear up a team and load, mulch should go on at once. On account of the difficulty in getting straw out of frozen stacks many growers are now spreading their mulch before the ground is frozen, but no covering should be placed immediately on the plants until plant growth has practically ceased."

Seven Bushels of Wheat for 35 cents

It has been done and can be done again. It was done with

Potash

added to the common "complete" fertilizer. Be sure that you have 6 per cent. of Potash in the fertilizer.

To increase the Potash one per cent. add two pounds of Muriate of Potash to each 100 pounds of fertilizer.

Details of this experiment and our other valuable books are free. They are not mere advertising matter, but books written by practical experts, and contain suggestions that will be helpful to the man who is trying to get the best out of his farm.

GERMAN KALI WORKS
93 Nassau Street, New York
Monadnock Building, Chicago
Candler Building, Atlanta, Ga.
Address office nearest you.

One Canadian Grower's Success

By William J. Moffatt

I AM an enthusiastic reader of The Strawberry, having been a subscriber since a short time after it was first published. I have been growing strawberries now for four years. Although I am a school teacher, I always find time on Saturdays and during holidays to carry on the strawberry business on a small scale.

I am one of those who began at the beginning and all my knowledge has been gained by experience and by studying your excellent literature.

I have tried the following varieties: Sample, Brandywine, Haverland, Dornan, Pride of Michigan, Enormous, Klondike, Wolverton, Climax, and others, and I find in my experience that Sample is one of the most productive. Next come Dornan, Brandywine and Pride of Michigan.

I use no commercial fertilizer, but give the land a good solid coat of stable manure, and work it well into the soil the fall before planting. Then in the spring as soon as the soil is in fit condition I have it worked up and the plants set out.

In planting we use the dibble and the spade. We have watered plants when set out but find from experience that they are better without it if the soil is cultivated right after planting.

My method of planting is this: Rows three and one-half feet apart, plants two feet apart in the row. When plants are formed on runners place two between each of the mother plants, making a continuous row. Then lead the runners out on each side of the row about eight or ten inches and layer them in by placing a small lump or stone just behind the node. Allow these runners to lengthen so that you will have a row of young plants on each side of the center row. As soon as the row is full, pinch off the ends of the runners and all new runners as soon as they come out. When this is done your plants are between eight and twelve inches apart and have plenty of room in which to develop. You also have about a foot and a half of space to cultivate between the rows, and this affords lots of room for pickers.

I could say much more, but I must make it short and say a few things about the great success of this year's crop, considering the unfavorable weather conditions. There were 950 plants in the fruiting bed; 500 of these were bearing their second crop, and the rest were bearing their first. They had been well cultivated in the summer of 1906 and had been well

mulched with pea and wheat straw in the fall. Our winters are always fairly severe this far north in Canada, but in spite of frost, drought and all the rest of it I am convinced that there is less risk of losing an entire crop of strawberries than of any other crop that grows in this wide world.

This spring was the most unfavorable one for plant growth that I have ever seen. Continual frost and cold weather when all the snow was gone, extending right up to the time when the plants should have been in full leaf, kept the plants back. But in spite of all this we never had a finer crop. Over 1,000 boxes were picked and sold besides what was eaten and used at home.

I used a circular in advertising the berries. People were running over each other to get my berries, which were far beyond all others in size and quality. There was such a demand that before half the crop was picked I had to stop taking orders. I am giving these particulars to encourage those who think they are not in a favorable locality to market berries.

Before I commenced growing berries one or two of my neighbors who grew a few in the ordinary way had great difficulty in selling them at all, even at five or six cents a box. This shows how easy it is to dispose of a first-class article. I live in a farming country fifteen miles from the nearest town. There are three small villages not far away however, of from 100 to 300 inhabitants each, and in these and the surrounding country I am sure I could sell five or six hundred dollars' worth of berries. I have one merchant in each village handle my berries exclusively. This season I sold the berries at ten cents per box and $2.25 per crate of twenty-four boxes. The merchants retailed them at ten cents per box straight, making only fifteen cents per crate. But they considered it a privilege to have the exclusive right of handling my berries.

We picked the first berries June 28 and made our last picking July 20. A few days after the last picking we mowed off the tops, let them lie for a day, and then raked off leaves and mulch into piles. On the same day we cultivated between the rows and raked the loose earth thinly over the top of the row. Then we took chaff forks, carried the leaves and mulch back again and put it evenly in the depression between the rows. This helps to retain moisture and keep the earth loose. Although we have had only one small rain since then, the plants today are springing up fine and green through the layer of earth.

The Enormous is the most productive of berries we have tested. On one plant we counted 175 berries, including a few blossoms. Dozens of other plants had over 100 berries and blossoms, but on account of the terrible drought not half of them matured.

We always pick in the forenoon and have the berries on the market early in the afternoon. We never have berries for market lie on our hands over night in the boxes, but let the consumer have them the same day they are picked.

Carefully arrange the berries stem downward in the top of the box. Have berries uniform in the crate; you will make no mistake by putting the big fellows in the bottom. One of my customers made the following remark: "Those berries I got from you were the finest I ever saw. Why, I am sure the berries in the bottom of my crate were larger than those on top."

My home is about one hundred miles north of Toronto, and from the success I have I am sure that berries can be grown even farther north than this and a good crop be assured in spite of frost and all other unfavorable conditions. Narva, Ont.

PLANTS IN THE FIELD OF H. B. STEWARD, MYRTLE POINT, OREGON

PRESIDENT ROOSEVELT and 50 other kinds of Strawberries. Black and Red Raspberry plants, Catalpa, Poplar and Japan Walnut trees. Send for catalogue. **Alva Cathcart, Bristol, Indiana.**

Isle of Pines W. I.

Wanted--A man to go down with me in October and look over my proposition on the Isle of Pines. I have several tracts of land there that can be worked on shares. The Island is a great place for Strawberry growing, also all kinds of Vegetables, Melons, Citrus Fruits, etc., and a great place for Poultry and Bee keeping.

I want to get in touch with parties who could go with me in October to the Isle of Pines and investigate my offer and proposition.

We can get a special rate on Ward Line Steamers from New York to the Isle of Pines for $30 one way. For more particulars, address

F. M. VanEtten,
238 Delaware Ave., BUFFALO, N. Y.

BRITISH hygienists are just now engaged in a vociferous attempt to show that the beautiful and delicious strawberry is the source of many human ills and that disease and death lurk within to attack those who eat of it. Last season it was an alleged Buffalo physician who ran amuck over the country decrying the strawberry. Now the fact is that people afflicted with certain diseases of the stomach or liver are affected by certain acids. Among the most injurious to some are the citrus fruits—lemons, oranges, grape fruit and limes. Some folk are immediately affected by eating tomatoes. So the strawberry is not agreeable or healthful to some people; but we venture the assertion that no other fruit, unless it be the apple, is beneficial to so large a proportion of the human family as the strawberry; and this, no doubt, the British hygienists who have succeeded in creating a dog-day scare, will themselves admit.

MAMA, I's got a stomach-ache," said Nellie, six years old.

"That's because you've been without lunch. It's because your stomach is empty. You would feel better if you had something in it."

That afternoon the pastor called and in the course of conversation remarked that he had been suffering all day with the headache.

"That's because it is empty," said Nellie. "You'd feel much better if you had something in it."—Judge's Magazine of Fun.

OUR thanks are due those members of The Strawberry family who have sent us marked copies of local newspapers containing flattering notices of their strawberries. Evidently "our folks" are the ones who know how.

QUITE unusual is the offering made by the Century Furnace Co. of Youngstown, Ohio, in this issue of The Strawberry. This company believes in the people, and as proof of its faith is offering its furnaces on a part-pay plan that makes it a simple matter for people with limited means to secure a furnace and have it installed in their homes. Read their advertisement and write for further information.

A Fool For Luck

By Elizabeth Clarke Hardy

YES, sir, it takes a fool for luck, an' that little fruit farm across the way goes to prove what I say. You can see for yourself that it is the purtiest and snuggest little place anywhere around, an' they do say that the feller that owns it is makin' money hand over fist, an' we never any of us thought he was so awful smart either.

"You see it was this way, stranger. When old Sam Brayton, who kept a grocery store over at Misha Mokwa, died, he left two boys, an' Jim the oldest was smart as a whip. His father had sent him to business college, though I guess it was a pretty tight squeak to pay the bills, and then Jim had got a position as bookkeeper in a big store in the city.

"But Ben was different; never seemed to have no ambition, nohow, an' just worked for old Judge Hill as a common farm hand till he had saved up money enough to take him through Agricultural College. Now I never could see what a man could learn about farmin' at any sort of school. If he knows how to plow an' seed an' harvest his crops that's all there is to it. But anyway, Ben went to school to learn to farm, an' about the time he came home his father died, an' after the debts was paid there was nothin' left for the boys an' their mother except the household stuff.

"Jim told Ben that he could not take care of his mother, he said it was about all a feller could do to take care of himself where it cost so much to live, an' Ben told him not to worry, fer he would look out for his mother.

"So Jim went back to his work in the city, an' what did Ben do but come out here an' buy this poor, run-down ten acre farm of a man who said he couldn't make a livin' on such a measly place, an' he wanted to go to the city an' drive a delivery wagon.

"Ben got the place cheap, an' it seems that he borried the money of old Judge Hill. Anyone'd trust Ben Brayton for he didn't know enough to be dishonest, nohow. Well, sir, Ben an' his mother moved right into that old shack an' Ben worked around for farmers durin' cornhuskin' an' thrashin' and put in all his spare time fixin' up the place agin' winter an' by cold weather you'd never have known the place. My woman said Mis' Brayton had real nice housekeepin' things and they seemed to allers have plenty of everything, but how Ben was goin' to make a livin' off that place was more than we could guess.

"That winter Ben cut cordwood an' earned enough to buy him a team, an' in the spring he covered every foot of that ten acres with manure six inches deep. He cleaned up his own place an' then bought all his neighbors didn't need, an' he plowed an' harrowed an' made that whole ten acres as fine an' level as a parlor floor. An' then, to cap the climax, he bought strawberry plants enough to set out five acres, an' took as much pains settin' them out as though he expected they would bring him in a livin'.

"'Thoroughbred plants' he called them, an' every minnit he wan't to work his nose was into some sort of a berry book, studyin' up fruit culture as he called it, an' in the fall it would have tickled you to death to see him cover up them plants with straw, same as if they were a lot of babies he was goin' to keep warm durin' winter.

"There's no use in denyin' that the next spring that strawberry bed was a sight to behold. First it was white as snow with blossoms, an' then it was red with the biggest berries you ever see. I guess he done pretty well sellin' his crop, too, for he built that snug little barn in the fall, and fixed up the house an' out buildin's, paintin' 'em all himself, beside buyin' a cow an' some farmin' tools.

"But most everyone was laughin' in their sleeves because Ben went an' bought more plants an' set out the hull blame ten acres, just leavin' a little plot for a garden.

"Well sir, the next year Ben made a big payment on his place beside fixin' up what he calls a lawn around the house. I ain't denyin' but what it looks fine, an' since he built on them new porches an' laid new hardwood floors, the house is fine enough for anybody. He bought a fine new buggy too, an' he and his mother ust to drive around lookin' fine as silk.

"The year after that Ben finished payin' for his place an' then he give us all the surprise of our lives. He up an' married old Judge Hall's daughter, an' I hear that the Judge was perfeckly willin' and it would a tickled you to death to see how proud she was of Ben an' his berry farm.

"Of course, Ben built a packin' shed and had all kinds of berry tools. My youngsters ust to pick berries for him an' you'd a laughed to hear them tell how particular he was to have the berries graded up just right. He never let them put the small berries in the bottom of the box an' the large ones on top as most everybody does that sells berries. He told them that would be cheatin' an' wasn't good business anyhow, an' they got so honest workin' for him that they would watch me in apple pickin' time an' see that I didn't put the small fruit in the bottom o' the barrel; an' they got so carried away with the way he kept things picked up around his place that they begun tidying up things around home, an' wouldn't give me any peace until I had fixed the front gate an' mended the steps of the back porch This spring they set out a big strawberry bed with plants that Ben Brayton give them, an' they are countin' big on what they are goin' to make off their berries.

"Now when we raise anything to sell we just cart it down to Misha Mowka an' sell it for what we can get for it, but Ben shipped all his berries to the city market. Yes, sir, actually shipped them himself an' got the top price of the market. I guess he is makin' a good bit of money, for my nephew that is cashier of the bank told me that Ben Brayton was now one of the stockholders, an' I hear that he has just bought the old Judson farm that joins him on the north. Maybe his wife's money is goin' into that. I dunno, but if it does it will be hern, I can tell you, for Ben is a mighty independent feller.

"An' Jim? Well, Jim married too, an' lives in one of them city flats. I hear he is still workin' at bookkeepin'. He's smart you know, an' kin do most anything. Last summer he an' his wife came out to

SCENE IN THE STRAWBERRY FIELD OF J. W. TAYLOR, EXETER, ONTARIO

STRAWBERRY GROWING ON THE ISLE OF PINES, WEST INDIES

visit Ben's folks durin' berry time. They dressed fit to kill, an' put on a heap of style, though my wife's cousin that lives next to them in the city told us they had hard times to make both ends meet, an' never laid up a cent. But Ben—well, as I said, stranger, it takes a fool for luck; an' I don't mean to insinuate that Ben is jest a fool either, but he is sure lucky at money-makin'."

Red Cedar, Wis.

How to Discover Sour Soil

STRAWBERRY growers, like everybody else, must meet soil-problems, and one of these is the problem of sour or acid soil—a condition that carefully should be guarded against and which may be relieved by liming. F. E. Bonested describes in Garden Magazine the litmus paper test for acid in the soil as follows:

An acid soil often refuses to grow a good crop, especially of hay, for instance, and the only recourse is to counteract this sourness. For all-around purposes a neutral soil is far the best. To determine whether your soil is acid and needs to be rectified by an addition of lime, get some strips of blue litmus paper from the druggist; it costs but a few cents. Now take a fair sample of the soil and mix with sufficient water to make it the same consistency of thin mortar. Imbed a strip of the paper in this and allow it to remain for half an hour; then withdraw carefully and rinse it. If the paper has turned a decided pink, it is safe to assume that an application of lime will be beneficial.

Several forms of lime are used to correct soil acidity. Ground limestone is the slowest and mildest form; air-slaked lime comes next in respect to these points; stone lime (burned) and fresh slaked or hydrated are the quickest and strongest in action.

The common objections to lime do not hold on well-manured ground and you are safe in applying considerable quantities. One to two thousand pounds may be used per acre of fresh-slaked lime when broadcasted on plowed ground and well worked in with a disc harrow. This must be done at least two weeks before any other manure or fertilizer is applied, or any seeds sown, as it prevents germination. Apply as early as possible in the spring.

A common practice in Pennsylvania is to distribute stone lime in the fall in small piles, covering with soil and spreading in the spring when it has slaked. Do not plow lime under in a mass; always distribute on the surface and harrow in. There is little danger from excessive application where there is plenty of organic matter in the soil.

FROM Danville, Ill. comes the following dispatch: Alleged to have sold strawberry plants with the guarantee that they would grow on bushes, on the sides of barrels and in many other and peculiar places, H. S. Blake who was before Justice Osborn Saturday appeared yesterday afternoon and was arraigned on the charge of working a confidence game. A continuance was taken and the man's bond was placed at $500 which he could not give and he was taken to jail.

Horticulture at the Jamestown Exposition

SOMETHING of the growing importance of scientific horticulture is suggested by the number of associations having each a different specific object, yet all of them directly having to do with this great subject, which are to meet at the Jamestown Exposition during the latter part of the present month. For the

information which follows we are indebted to Garden Magazine:

The gathering which dominates in its importance is that of the Biennial Session of the American Pomological Society fixed for September 24, 25 and 26. This organization embraces in its membership the leading fruit growers, orchardists and scientific horticulturists of the country. The valuable service rendered to commercial horticulturists in its old-fashioned aspects, that is, fruit production, has been untold. Of recent years the program of the various sessions has shown a very curious tendency to drift away from what might be generally regarded as the strict subject of the Society's interest and tends towards intricate problems of horticultural research. In other words, it has become more scientific.

The Society of Horticultural Science announces its fifth annual meeting for the same days as those of the thirty-first biennial meeting of the Pomological Society, and the membership of this society is formed exclusively of scientific investigators and workers in horticulture, and is much more specialized than that of its older sister from which it is an off-shoot. At this year's session, the single topic of plant breeding will be discussed.

The National Nut Growers' Association having its headquarters at Poulan, Ga., has also fallen into line and announces its session as continuous from the Pomological Society. It will meet on September 26 to 28. This little society is really exercising a very marked influence in Southern states, and has been very effective in the rapid development of the nut-growing industry, especially in pecan nut-growing regions. Nut trees should appeal very strongly to the farmer in almost any part of the country. The trees are multi-valuable; not only is their annual crop worth while, but the trees themselves have a timber value, and the hickory, walnut and chestnut, from this latter point alone, should be well worth planting by the farmer.

The National Council of Horticulture, which was organized as an off-shoot of the Society of American Florists for the direct purpose of stimulating public interest in horticultural matters of any sort, will also meet during the horticultural convention week at Jamestown (September 23 and 24). This body was organized for the purpose of stimulating horticultural interest through the public press and by means of other organized agencies. It cannot be doubted but that its work has been productive of real good during the couple of years it has been in operation.

Beginning on September 30 and on the first two days of the following month, an international convention on the important subject of Plant Hardiness and Acclimatization will be held in New York, under the auspices of the Horticultural Society of New York. This meeting is planned along lines similar to those of the very successful Second International Plant Breeding Conference in 1902, organized by the same society. It gave a great stimulus to serious study of plant breeding in this country, resulting ultimately in the formation of the American Breeders' Association, which also includes the study of farm animals.

Growing Importance of Concrete

THIS may be called the age of concrete, an age developed as a result of the ruthless slaughter of the forests and the consequent high prices of lumber, prices so high that the man of ordinary means finds it all but impossible to make for himself a home of the materials that were comparatively inexpensive even a decade ago. But a worthy substitute has been found that in some respects is superior to lumber—in lasting qualities, in protection from fire, in the fact that paint may almost be dispensed with, at least so far as the exterior of buildings is concerned. Common sand and gravel, mixed with a good quality of Portland cement and molded in an inexpensive machine, make a material that outwears granite, as has been proved by the wonderful concrete roads built in the days of Rome's glory, which still stand as the best type of highway construction the world ever has known.

That our Strawberry readers will be interested to have some definite information on this subject we are sure, and as we have just received from the Colorado Agricultural College some important suggestions along this line, we pass them along just as they come to us:

Cement.—Use nothing but the best cement that can be obtained. It should be in a fine, powdery condition and contain no lumps. Cement should be stored in a dry place, as dampness is an element of great danger.

Sand.—The sand used should be clean, sharp, and not too fine. It should be free from loam or clay, as these will tend to destroy the adhesive quality and to retard the setting of the cement. Clay mixed with the sand may be removed by washing.

By sharp sand we mean that the edges of the grains must be sharp and not round or worn off, as will often be the case with sand found in the bed of a stream. Coarse sand is better than fine sand. Fine sand, even if clean, makes a poorer mortar or concrete and requires more cement to thoroughly coat the grains. A large proportion of the grains should measure from one-thirty-second to one-sixteenth of an inch in diameter. Some fine sand is necessary to help fill the spaces between the larger grains, thus saving cement.

Water.—The water used should be clean and free from acids or alkalis. For making the best concrete, add just enough water so that when all the concrete is in the form and is well tamped, moisture will show on the surface. The tamping is a very important operation and the quality of the work is dependent upon how well this is done. Unless this is thoroughly accomplished the concrete is likely to be honeycombed and imperfect, especially near the forms.

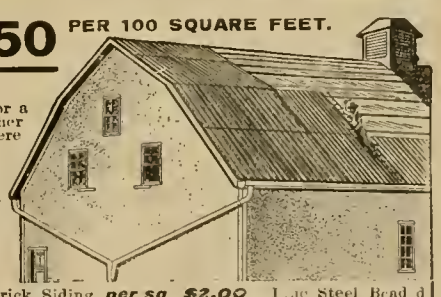
Proportions.—For ordinary farm construction, as the making of floors, walls, walks, gutters, etc., the following proportion is to be recommended: 1 part cement, 2½ parts clean loose sand, and 5 parts of loose gravel or broken stone. For floors this should be tamped in to a depth of from 5 to 8 inches. This should be finished with a surface coat 1 to 1½ inches in thickness, composed of 1 part cement and 1½ to 2 parts of clean, coarse sand, mixed. Nearly all constructions which come in contact with water should be covered with a mortar at least as rich as the proportion last named. For engine foundation, 1 part cement, 2 parts sand and 4 parts broken stone is best.

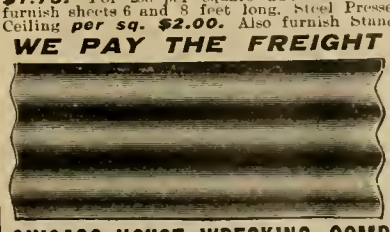
In estimating the amount of material necessary for a certain construction, do not make the mistake of thinking that a mixture of 1 barrel of cement, 2½ barrels

STEEL ROOFING $1.50 PER 100 SQUARE FEET.

Most economical and durable roofing known.

Easy to put on, requires no tools but a hatchet or a hammer. With ordinary care will outlast any other kind. Thousands of satisfied customers everywhere have proven its virtues. Suitable for covering any building. Also best for Ceiling and Siding. ***Fire-proof and Lightning-proof.*** Cheaper and more lasting than shingles. Will not taint rain water. Makes your building cooler in summer and warmer in winter. Absolutely perfect. Brand New. ***$1.50*** is our price for our No. 15 Grade of Flat Semi-Hardened Steel Roofing and Siding, each sheet 24 in. wide and 24 in. long. Our price on the Corrugated, like illustration, sheets 22 in. wide by 24 in. long, ***$1.75.*** For 25c per square additional we will furnish sheets 6 and 8 feet long. Steel Pressed Brick Siding ***per sq. $2.00*** Lap Steel Bead and Ceiling ***per sq. $2.00.*** Also furnish Standing Seam and "V" Crimped Roofing. At these prices to all points east of Colorado except Okla., Tex. and Ind. Ter. Quotations to other points, on application. ***Satisfaction guaranteed or money refunded.*** We ship this roofing to any one answering this Ad., C. O. D., with privilege of examination if you send us 25 per cent of the amount of your order in cash; balance to be paid after material reaches your station. If not found as represented, we will cheerfully refund your deposit. ***Ask for Catalog No. C. G. 733.*** Lowest prices on Roofing, Eave Troughs, Wire, Pipe, Fencing, Plumbing, Doors, Household Goods and everything needed on the Farm or in the Home.





WE PAY THE FREIGHT

WE BUY OUR GOODS AT SHERIFFS' AND RECEIVERS' SALES

CHICAGO HOUSE WRECKING COMPANY, Thirty-Fifth and Iron Sts., CHICAGO.

of loose sand and five barrels of gravel or broken stone will make 8½ barrels of concrete. The sand will fill the voids between the gravel or broken stone and the cement fills the voids between the grains of sand. The total amount of concrete will be but slightly more than the amount of gravel or broken stone used.

To make one cubic yard of concrete of the following proportions—1 part cement, 2½ parts sand and 5 parts gravel—requires about 1¼ barrels of cement (5 sacks), 3¼ barrels of sand, and 6½ barrels of gravel.

Mixing.—Be very careful in measuring the proportions. Mix the concrete as near the place it is to be used as possible. Use as soon as mixed. Do not mix too much at once.

Measure the sand first, and spread it in an even layer in a mixing box, place the cement on top and turn it with a shovel ar least three times. Then add the broken stone or gravel which has previously

> And he gave it for his opinion, that whoever could make two ears of corn or two blades of grass to grow upon a spot of ground where only one grew before, would deserve better of mankind and do more essential service to his country than the whole race of politicians put together. : : : Dean Swift.

been wet, and turn the whole at least three times. Begin to add the water on the second turning, not too much at once. A sprinkling pot is better than a hose for adding the water, as it does not wash away the cement.

Concrete work should be avoided in freezing weather, as frost damages it. Where it is absolutely necessary to do work at this time, a small amount of salt added to the water will prevent freezing; this does not damage the concrete where used in small quantities.

An objection is sometimes raised that concrete floors and walls are too smooth and become slippery when wet. This fault is largely due to the fact that the finishing surface was completed with a steel smoothing trowel instead of a wood trowel, or smoothing board, which would have left the surface rough. This fault is also overcome in a great measure by dividing the wearing surface into small squares about four inches on each side, by means of triangular grooves three-eighths of an inch in depth. This not only makes a neat appearance, but furnishes a good foot hold for stock.

PICKING STRAWBERRIES IN A FIELD NEAR PROCTOR, WASH.

Management of the Propagating Bed

By M. N. Edgerton

GRANT'S PASS, OREGON, Aug. 1, 1907

Won't you please get M. N. Edgerton of Petoskey, Mich. to give us a few pointers on how he conducts his propagatihg bed? Tell him to get down to the vitals like he did in his article in the July Strawberry.

L. HUNT HUGHES.

IN essentials, our method of growing plants for propagating purposes, does not differ from that of growing plants for the fruiting bed. That is to say, the ground should be as well supplied with plant food and as well prepared for the reception of the plants in the one case as in the other. Equal care should be exercised in keeping the surface of the ground stirred and weeds out.

We prefer a virgin soil where available, and one containing a fair percentage of sand. Such soils do not pack with rains and is easily shaken from the roots of the plants at digging time.

We use the very best plants we have for this purpose, and set them in rows four feet apart and about two feet in the row. It is best to go the same way in the row when cultivating, as the runners will then spread more evenly. When possible, we layer the runners, i. e., push the nodes into the soil or otherwise secure them so they will root quickly. This may be done by throwing a little soil on the runner near the node. As the plants begin to fill in the rows, the cultivator should be gradually narrowed. The nodes dropping into the depressions left by the cultivator teeth (we use a 12-tooth for this purpose) quickly take root if there is a fair percentage of moisture present in the soil. It is best to remove all runners that spring from a runner (laterals) as such runners always produce weak and inferior plants.

Further than this, we would not use these plants further out on the runner than the third. If the runner is clipped off here, or better still at the second plant, the energy thus saved goes toward making the first plants large and strong. From these plants will arise other runners strong and full of vitality, from which will spring other plants as good as the first or nearly so.

There should be timely applications of Bordeaux, poisoned if there is any trouble from insect pests. The Bordeaux is to prevent rust from developing on the leaves. Where one is thorough in treating the plants in the propagating bed, it usually will not be found necessary to do much of this work in the fruiting bed. However, I would make an occasional application here anyhow, just for principle's sake.

If during the last growing month of the season all runners putting out from the plants are removed, those already set will be all the stronger for it. If allowed to set they should be rejected when digging. In our own operations we reject all plants not meeting our rather exacting ideals. We throw away many plants that the average grower would use.

Our method of culture calls for cultivation both ways of the field during the fore part of the season and quick filling up of the rows, hence it is especially desirable that the plants be as uniform as possible when set.

At the approach of freezing weather it is very essential that a light covering be applied to protect the plants.

In summing up the matter of essentials we would say: a rich soil well supplied with humus; frequent cultivation; care in seeing that the plants root at once; protection from insects and fungous diseases, and protection from winter's frosts and sunshine. No fruit is allowed to set in our propagating bed.

Petoskey, Mich.

CHAMPION POTATO MACHINE CATALOGUE

FREE!

Send at once for this book describing the new Champion Potato Digger. It tells how to get twice as much money out of your potato crop as you got last year. Tells also how to save time and labor. Expense is trifling and will more than pay you back the first season. Thousands in use and making big money for their owners. Write us at once for complete catalog of potato machinery. We make nothing but machinery for assisting the potato grower to get the biggest yield and better prices for his product. Write for this book today.

Champion Potato Machinery Co., Dept. 151, Hammond, Ind.

Importance of Farm Cost Accounting

By W. J. Predmore

FARM COST ACCOUNTING, as the words signify, means keeping a record of farm costs; not in a lump sum, nor "in one's head", but keeping an accurate account of every expense involved in the production of crops, live stock, etc., so that the exact cost may be known, and so that the relationship of cost to the selling price may be known.

The importance of farm accounting has been recognized only of late years. This, indeed, may be said of business in general, but the manufacturing enterprises

> THE ONLY WAY TO
> EARN MORE
> IS TO
> LEARN MORE
>
> —*Tom Murray.*

of the world were years ago compelled to enter upon a system of cost accounting in order to save themselves from actual bankruptcy. Now the changing conditions of farm life, which are turning the modern farm into an industrial enterprise of greater or less magnitude, compel the farmer, if he would save himself, to adopt a rigorous system of accounts.

Correct information in regard to costs is a prerequisite to profit in any branch of agriculture, and is absolutely essential to the formation and maintenance of any line of policy regarding the management of the farm. Management certainly involves these two elements: first, good judgment as to products particularly adapted to the farmer's environment—soil, climate and markets; and second, thorough knowledge of the cost of the commodities he produces upon his farm. On most farms physical operations are carried on in a systematic manner, but as a rule the most essential operation—finding of the costs—is quite lost sight of. Yet it is not only one of the most essential elements in the farmer's success; it also is one of the least expensive, one of the simplest and one of the best money-making operations that can be performed upon the farm.

In this age of ours there has come to be a very close relationship between farming and manufacturing. Before a farm implement may be manufactured there must come the purchase of the raw material, such as iron, lumber, bolts, etc. Then the manufacturer must hire labor to make up these raw materials and assemble these parts into an implement ready for the farmer's use. The value and price of that implement depends upon the quality of material you put into it, the workmanship, and the general conditions under which it was produced—that is, the conditions of machinery, buildings and economical arrangement of the plant.

So with the farm. Before a good crop may be produced the farmer must purchase his materials, not merely seed, but the fertilizer, implements, horses; he must arrange, if he lives in a land of limited rainfall, for irrigation expenses, and he must hire labor to aid him in carrying forward the enterprise. All of these things must enter into the cost of his product the same as the raw materials enter into the manufacturer's implement which we have considered; and all these things must be considered in their relationship to the market price of the farmer's productions before the farmer may know whether he is operating at a profit or a loss. So, just as it is essential for the manufacturer to know the cost of the implement he produces before he can fix the price and know his profits, so is it essential that the farmer know the cost of his crops in detail, before he can know his profits.

It is true that the farmer does not fix his own prices as does the manufacturer, as the price of staple articles produced upon the farm is governed by world-wide conditions of supply and demand. But there are many lines, even upon the farm, in which the farmer may specialize, and by developing a superior quality of products, be able to fix a higher price for his product, because his products are in greater demand. But even in the case of the farmer whose products are governed by world-wide condition—his situation is identically the same as that of the manufacturer, so far as the relation of cost to profit is concerned, and the necessity of his knowing both, if he is to be successful in his line of endeavor. Should the manufacturer lack thorough knowledge of these costs, he would never know where to cut them, and therefore must sooner or later meet with failure. And so will the farmer, if he goes on producing goods at a greater cost than the market is willing to pay, reach the same unfortunate end. To be able, therefore, to cut the costs of production these costs must be known in detail. Hence the absolute necessity on the farm as in the factory of knowing exactly what each article produced is costing.

In carrying forward farm operations of whatever nature, as well as in all other lines of business, there always is the man at the head, the man who holds the reins and directs the enterprise. We find that the farmer, because of years of experience and more than a quarter of a century of ceaseless endeavor, knows more about his business than any other member of his family. He knows when and where and how to plant, cultivate and sell. He knows pretty well what pays best and he knows something about this, that and the other crop. This knowledge, all of it, he "carries in his head". He keeps no books. When he dies the knowledge dies with him. He leaves nothing by means of which his work may be carried on where he left off. This is not good business and

— Comparative Cost and Sales Record —

Stevens	1903-4			1904-5			1905-6			1906-7		
# Acres	Cost			Cost			Cost			Cost		
	Total		Per Acre	Total		Per Acre	Total		Per Acre	Total		Per Acre
Plowing	6	00	1	60								
Harrowing	7	50	1	87								
Sowing Rye	1	50		38								
Manuring	6	00	1	50								
Plowing	6	00	1	00								
Harrowing	7	50	1	88								
Setting Plants	18	00	4	50								
Cultivating & Hoeing	129	60	32	40	140	00	35	00				
Picking Beetles	10	00	3	75								
Mulching	6	00	1	00	7	00	1	75				
Removing Mulch	2	00		50	3	25		56				
Picking Cherries	340	00	85	00	365	00	91	25				
Packing "	48	00	12	00	50	00	12	50				
Marketing "	32	00	8	00	33	00	8	25				
Total Labor Cost	623	10	155	78	638	25	159	56				
Seeds	112	00	28	00								
Rye	3	00		75								
Mulch	8	00	2	00	10	00	3	50				
Boxes & Material	152	00	38	00	65	00	21	75				
Expense	32	00	8	50	36	00						
Total Material Cost	310	00	77	00	211	00	53	75				
TOTAL COST	933	10	233	27	770	25	183	56				
Sales	1951	85			1840	00						
Profits	1018	75			1069	75						

it often results in unnecessary hardship and misfortune to his family. How many young men do our readers know, whose parents have left them large farms, who have utterly failed in the management of their farms because there was no available data for them to base a line of action upon? How many of the abandoned farms in the East today were abandoned because of this circumstance? A system of cost accounting, carefully and accurately pursued, would have been a beacon light to such young men; would indeed have been the very foundation of a successful and commanding enterprise.

The accompanying illustration is a very interesting comparative cost and profit record, which was compiled from the cost account of a four-acre strawberry patch under a well organized system. It will be noted a comparative cost per acre is shown for each operation, the total cost, sales and profits, and from this it is very easy to know the exact cost per quart of each crop.

All other farm products may be treated in the same manner to show detailed results.

Three Rivers, Mich.

WE cannot too strongly urge the importance of this matter upon readers of The Strawberry who, at a comparatively trifling expense, may institute a system of cost accounting that shall enable them to know at all times exactly what their crop is costing them, and thus at the end of each year know whither they are drifting in a financial way. By all means investigate this matter of cost accounting and systemize your business along the lines here suggested.—Editor The Strawberry.

⚜ ⚜

FROM the Irish World we receive the following intelligence which well may be labeled "important if true". We quote: "Patrick O'Mara stirred up a sensation at a dinner of wholesale seedsmen the other day, which closed the convention of the American Seed Trade Association at the Waldorf (New York), by announcing that a new fruit is being raised in New Jersey, which will be known as the 'millionaire strawberry'. Mr. O'Mara says the new strawberry will be almost as large as a Burbank potato. He visited the farm in New Jersey where the new fruit is growing, and found that nearly two carloads will be ready for market next season."

⚜ ⚜

UNDER the new laws of the state of Missouri it has been found necessary to reorganize the Missouri State Horticultural Society, says secretary Tippin in a circular. As the semi-annual appropriations by the state could not be legally made under the constitution, the State Board of Horticulture was created by an act of the legislature 1907. The members of the board are appointed by the governor instead of being elected as by the old society. The new board is: C. H. Dutcher, Warrensburg, president; N. F. Murray, Oregon, 1st vice-president; J. H. Christian, Neosho, 2nd vice-president; T. H. Todd, New Franklin, treasurer; W. P. Stark, Louisiana, R. M. Hitt, Koshkanog. C. H. Dutcher was re-elected president of the old society at the last annual meeting and was elected president of the new board. Geo. T. Tippin was elected secretary at the last annual meeting and was also elected secretary of the new board.

⚜ ⚜

SUBSCRIBER No. 1 to The Strawberry, the very first person to send in a dollar to this magazine, was Miss S. M. Pollard of Woodside, Minn. We are therefore particularly interested and pleased to publish the following from the Erskine (Minn.) Echo, and are sure that every reader will take pleasure in knowing of the success of this member of the Strawberry family: "Ye editor and family enjoyed last Sunday at the beautiful farm residence of S. M. Pollard in the town of Woodside and were royally entertained. We were asked out to see her strawberry patch and beheld one of the prettiest sights it has been our pleasure to gaze upon for a long time. The patch, as she calls it, consists of about one-third of an acre of ground well filled with rows of fine growing strawberry plants, and not a weed to be seen. The plants were heavily laden with delicious fruit, one of which we measured and to our amazement found it to be six and three-quarters inches in circumference and of the most pleasant flavor. From this patch of less than half an acre, Miss Pollard estimates a yield of about 2,500 quarts of as fine berries as were ever seen, for which she has a ready local market."

⚜ ⚜

UNIQUE and valuable is the new department recently created by White's Class Advertising Co. in its commodious new quarters at 118 West Jackson boulevard, Chicago. It is a permanent exhibit of the products of the advertisers who place their advertising through this popular company, and it is attracting wide attention, while it gives to every investigator a chance to see for himself the merits of the goods advertised. It is also a show place for hundreds of publications. Thus the advertiser, the advertising medium and the general public are brought together on the ground of common interest, and all served by this public-spirited enterprise.

This is the Celebrated

"Fendall" Strawberry

Actual size, reproduced from photograph.

A Limited Number of Plants For Sale!

First come, first served. **$5 per dozen, $15 per fifty, $25 per hundred. Yields sixteen thousand eight hundred qts. per acre.** Ready for delivery from Aug. 1st to Nov. 1st, 1907, and spring of 1908.

Other choice varieties for sale! viz:

Corsican, Senator Dunlap, Climax, Pineapple, Orem and Gandy, forty cents ($0.40) per doz., one dollar and seventy-five cents ($1.75) per fifty, three dollars ($3) per hundred, by freight, express or mail. The "Fendall" being a pistillate, Corsican, Senator Dunlap or Climax are excellent mates for it. One row of the varieties named, then four rows of "Fendall", and so on, will give an ideal strawberry patch.

Send at once for descriptive catalogue!

CHARLES E. FENDALL, Towson, Md.

PICKING STRAWBERRIES IN THE FIELD OF J. PHEND, NAPPANEE, IND.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

SOMETIMES our friends write us about the possibilities of certain kinds of soils and send along a sample. In this connection let us say that even an analysis can reveal only the chemical properties of the soil, and will not indicate what the soil will do in actual experience. Some soils may contain large quantities of plant food, but mechanical and other conditions of the soil may make this food unavailable. Other elements may have to be introduced, or the mechanical condition changed before the soil will produce crops. Again, a particular soil might produce crops of one kind fairly well, but do poorly with others. Indeed, there are so many conditions affecting soils that it is only those who know little about them that would attempt with any degree of accuracy to tell what a farm would do, judged by a sample of that soil.

Let us repeat here what we have often said before, that any soil that will produce a good crop of corn or potatoes will produce a good crop of strawberries under the same conditions that the corn or potatoes were grown.

Last month the compositor set up "pounds" where he should have used the word "ounces", and we hasten to correct the error. Answering W. A. J., Bradford, Vt., on page 77, we gave the formula for preparing Paris green as ten ounces of Paris green put over two pounds of lump lime, over this pouring two gallons of hot water; and when the lime is thoroughly slaked add enough water to make forty gallons of spraying material. Please remember that the amount of Paris green is ten ounces instead of ten pounds.

W. C. S , Bowling Green, Mo. A small black bug worked on the bloom of my strawberries. A small black spot would appear on the pistils of the flower. Can you tell me the name of the bug and what I can do to prevent it the coming spring?

2. How can I plant strawberry seed to get them to germinate? Have planted them several times but they won't grow. When is the best time to plant them?

The insect you describe is the black-snouted beetle. This insect deposits its eggs in the buds of the strawberry and then gnaws through the stems a short distance below the buds causing the stems to wilt and droop. The egg hatches into a little grub, which develops in the bud, becoming full grown in a few weeks, emerging into a full-grown beetle about five weeks after the egg is laid. The best preventive is clean cultural methods, burning over after fruit is picked, and rotation of crops.

2. In preparing strawberry seed for planting, they should be mixed with fine dust and covered very shallow with moist soil; plant in the springtime as any other crop.

H. S. B., Berzelia, Ga. When you say that runners should be layered in such a way that the runner plants will be within about six inches of the mother plant, do you mean that the crown of the runner plant should be six inches from the mother plant, or that the leaves of the runner plant should be six inches from the leaves or the mother plant? If the former would the plants not be too close together to work with a hoe in between them?

2. After the runner plants have taken root, should the runner attaching them to the mother plant be broken or cut away, and, at the time of layering, should the end of the runner cord back of the node be pinched off?

3. Referring to the June issue of The Strawberry, page 141, you say, "Don't lose any time in layering runners after the node begins to swell." Please explain just what is meant by this. I am not able to determine just the appearance of the node. I layered some runners the other day back of what I took to be node, but what proved to be where the lateral runners started from the original one.

The crown of the young runner plant may be so placed that it will be but six or eight inches from the mother plant. When ser in this manner, the foliage of the plants will come together, but that will be all the better, as then there will be more protection for the berries at fruiting time. If the crowns of the plants can be eight inches apart, it will be all the hetter, but it is almost impossible to have them so far apart because the runners of some plants are not as long as others. When the plants are set close together in this way, it will in no way interfere with the hoeing until the plants become quite large, at which time it will not be necessary to hoe in between the plants, the leaves will shade the ground and prevent it from crusting and getting hard.

2. It is never necessary to sever the young plant from the mother plant after it takes root. Nature provides for this by drying up the runner cord which leads from the mother plant to the young plant. Neither is it necessary to pinch off the runner cord back of the node, as you mention.

3. You can easily tell where the node is located, as at that point there is an enlargement, and in a few days small leaves will start developing at the node. If you do not get the runners layered until the node bursts into leaves, results will be just about the same, but it is always best to layer them as soon as they begin to develop.

Miss L. E. W., Providence, R. I. Not counting the extra cost of plants, nor the extra work for setting out, picking blossoms and cutting runners, up in Maine where my farm is located and where the seasons are short, do you think more berries could be grown, on say Dornan, Parker Earle, or Oregon Iron Clad, if the plants were grown in hill culture twelve inches apart instead of single-hedge row?

2. Why is sandy land best for a propagating bed?

3. In the single-hedge row are just two runners allowed between the mother plants when they are two feet apart?

4. How many runners will Parker Earle, Dornan and Oregon Iron Clad grow in the propagating bed?

5. Your catalogue says Parker Earle will go ahead of all others on rich low land. What do you consider rich low land?

6. How much manure is not too much on good potato land, a clay loam or flat land between a river and a steep side hill?

7. Does the land need to be richer for Parker Earle than for Dornan?

8. If you could have all the hen manure you wished how much would you use with stable manure for Parker Earle, Dornan and Oregon Iron Clad?

9. What do you think of muck for a fertilizer or for humus provided it has been spread on the ground for a year and then worked over by hogs? How much of it would you use?

10. In your January Strawberry in your article on soil preparation you speak of sowing 500 pounds of commercial fertilizer broadcast and planting potatoes. Why do you not use more fertilizer for the potatoes?

11. How deep and how far apart do you plant the seed pieces? Do you use large or small potatoes for seed? How many eyes do you leave on each seed piece? How many bushels of seed per acre do you use?

12. How large a crop do you expect and how long for them to mature?

13. Do you hill the potatoes? If so how many times, how deep, and how large are the tops when you do so?

14. Would the nitrogen in the fertilizer be lost if the potatoes were not planted for three weeks after the fertilizer was broadcasted?

No; and the double-hedge row will prove the best of them all, as the berries

grow as large under this system as under the single-hedge row, and a larger number are produced.

2. It grows a heavier root system and is more easily handled under varying weather conditions.

3. Yes.

4. From twenty-five up, depending on soil and weather conditions.

5. Black, moist land, full of humus and capable of large crop production.

6. Ten tons.

7. Yes.

8. None; the stable manure will require no addition in the way of chicken droppings.

9. Muck will be all right treated as you describe. Put on sufficient to cover one inch deep.

10. If your soil is poor 1,000 pounds may be applied.

11. Fifteen to eighteen inches apart. Use medium-size potatoes; two bushels to the acre, cut into pieces about the size of a hulled walnut.

12. Not less than 400 bushels to the acre. Leave in ground until ready for market.

13. We do not hill, but grow by the level method, which is altogether the better way.

14. No.

LEARN BOOKKEEPING FREE
WE TEACH YOU

We Secure a Position for You.

Would you like to succeed in business, to obtain a good paying position; to secure an increase in salary? Would you possess the capacity that directs and controls large business enterprises? If so, you should follow the example of Mr. Edw. Chapman, of No. 606 So. 5th St., Goshen, Ind., who largely increased his salary after taking our course. A knowledge of accounts increases your opportunities a hundred fold. Our method excels all others. You can learn quickly at home, without loss of time or money. We guarantee it.

A GREAT BOOK FREE

"How to Become an Expert Bookkeeper" is the title of an extensive treatise on Bookkeeping and Business. It tells of the best system of accounts ever devised, and explains how you can make more money and better your position in life. It is just the book for beginners and experts alike. To advertise our system we will give away 5,000 copies absolutely free, without any condition whatever. Simply send your name and address and receive the book without cost. Address

Commercial Correspondence Schools,
851 Commercial Bldg., Rochester, N. Y.

J. M., Galion, Ohio. I have some fine plants set in August, 1905 of the Miller, Dunlap and Sample. They bore a few berries last spring. Would you advise setting plants from them?

2. My berries this year towards the last were a little soft. I lay it to top-dressing in August; then I cultivated and mulched with straw. Do you think it was on account of too much manure?

3. Has nitrate of soda a tendency to harden the berry when used in spring?

4. Would it be advisable to give cultivation in spring and then spread the mulch?

5. Would fertilizer be any good plowed in between rows in the spring?

6. Would nitrate of soda, wood ashes and bone meal make a good fertilizer for my bed?

7. How about using the liquid manure from the barnyard?

It would hardly be advisable for you to take plants from your Miller, Dunlap and Sample, that bore a light crop of fruit, as there would be some danger of the runner plants being weakened.

2. Too much nitrogenous manure will cause strawberries to be soft, and salvy. Sometimes weather conditions will have an influence upon the texture of the berries, as large quantities of rain often will make the berries soft.

3. Nitrate of soda will produce a large vegetative growth, and will make berries develop to larger size, but it will not make them firmer. Potash aids wonderfully in giving the berries a firm texture, as well as color. If your soil is sandy loam, fifty bushels of wood ashes scattered over the ground and thoroughly worked into the ground before plants are set, will assist in getting firmer berries and of better color.

4. The principal objection to applying mulching in the spring is the fact that it is almost impossible to get the mulching under the foliage so that the berries will ripen upon it. When the mulching is applied in the early winter, it settles down all around the foliage and when the mulch is opened up for the plants to come through, they will spread over this mulching, making it possible for the berries to ripen on a clean carpet of mulching. If you wish to cultivate the fruit, after parting the mulching from over the rows, also rake the mulch between the rows up close to the plants and cultivate the bare space. After several cultivations the mulching can be drawn back to its proper place. You can continue cultivation through the entire fruiting season if you wish.

5. If you can get a fertilizer that will become available quickly, it will be all right to cultivate it in between the rows before the buds open. Nitrate of soda would be about the best fertilizer you could use on the fruiting bed in the spring before plants fruit.

6. It would depend somewhat upon the condition of your soil to determine whether or not nitrate of soda, wood ashes and bone meal would be the most profitable for you to use. If your soil has in it a liberal amount of vegetable matter, such as cow peas or coarse stable manure would produce, then the wood ashes could be applied on top of the plowed surface at the rate of fifty bushels to the acre, and bone meal at the rate of 300 pounds to the acre. Both of these ingredients should be thoroughly worked into the soil before plants are set. After plants start growing you may sprinkle a very small amount of nitrate of soda in all the rows. The following spring before fruiting season 100 pounds more of nitrate of soda could be used to the acre.

7. Liquid manure can be profitably used if your soil is deficient in nitrogen, but we wish to caution you against pouring it around the plants when the ground is dry. Liquid manure should always be applied around plants after a rain, when the soil is thoroughly moist. You are correct in preparing your soil a year in advance of setting it to strawberries.

SEND $5 FOR THIS FURNACE

NOW, to insure a LOW price Then send $10 more when ready for it. Balance AFTER approval. That's how we now sell America's Highest Grade Mail Order Heater, the old. time-tried

19th Century Furnace

which is still made of old fashioned rust proof wrought IRON (not modern short lived steel) for which Youngstown is famous Former $130 Complete Outfits, now $79. Tools 45c Save $50. Set up your own job. No sane man can get stuck Thousands doing it, thus saving enormous profits Our Illustrated Book, showing how marvelously easy it is, sent free Address

Century Furnace Co
Box C Youngstown, Ohio

FOR SALE

120 acres First-class Fruit Land, all under cultivation; in the famous fruit belt of the Willamette Valley. Surrounded by fruit farms of all descriptions. Splendid markets—macadamized roads to Salem, the capitol of the state. Free rural delivery—telephone—two churches and school near by—house, barn, fences, good well, splendid soil, climate delightful, good neighborhood.

A bargain if taken soon. For terms and prices address

H. H. SMITH,
468 E. Washington St., PORTLAND, ORE.

SPEAKING OF SPRAYING
Don't forget that the
Wallace Power Sprayers
Are made in all styles with a
Special Pattern for Berries and Vegetables
Full Information Furnished on Application
WALLACE MACHINERY CO., Champaign, Ill.

A. L. W., Dufur, Ore. Will you kindly publish what would be a good variety to mate with Clark's Seedling? It is the leading berry here. We would have something fine and dark colored.

Clark's Seedling is a strong bisexual, and requires no mate; yet we know the exchange of pollen between bisexuals when set near each other encourages the development of more and better fruit, we would suggest that such a strong pollenizer of the same season as Hummer or Senator Dunlap or Parsons' Beauty, set with

Clark's Seedling might result in better results all-round.

F. L. E., Keene, N. H. Please inform me about the propagating bed—do you allow the plants to bear after you have taken runners from them, or how do you know which are the best plants?

The propagating bed should be used for no other purpose except to grow plants, and when taking up the plants the entire row should be taken up. If you take up the tip plants, and allow the rest to produce fruit, the bed would be a failure in both ways, as the plants you would get for resetting would be the very weakest and those that were left to fruit would be injured by removing the tip plants.

E. W., Scotch Ridge, Ohio. What is the chemical composition of hen manure and the percentage of each element?

2. How much by weight of dry hen manure, ground to powder, will it be safe to apply to an acre of rather poor land in preparing it for strawberries? Also how much when scattered between the rows?

3. When other manure can not be had, can hen manure, with cow peas for humus, be made to take its place? If so how many tons of hen manure would be equivalent to fifteen tons of stable manure?

4. Could any compound of hen manure and commercial fertilizers, applied separately of course, be made to take the place of barnyard manure?

Your several questions may be answered as follows: The chemical composition of one ton of poultry droppings, is

Water	340 pounds
Organic matter	1020 pounds
Ashes	740 pounds

And when this fertilizer is properly cared for, it will analyze

Nitrogen	3¼ per cent.
Potash	1¾ per cent.
Lime	4¾ per cent.
Phosphoric Acid	3 per cent.

2. One ton of pure, dry and finely ground poultry droppings, will be sufficient to fiertilize one acre. This should be scattered on top of the ground, after it has been broken up and thoroughly worked into the soil before the plants are set, and it should be distributed through some kind of a fertilizer drill, so that an even distribution could be made. The same amount could be used between the rows of strawberry plants.

3. In looking over the analysis of poultry droppings, you will note they are quite rich in nitrogen, and deficient in potash and phosphoric acid, and as cow peas draw considerable nitrogen from the air, the peas in connection with chicken droppings would make your ground too rich in nitrogen and not rich enough in potash and phosphoric acid. But the poultry droppings and cow peas would put your soil in ideal mechanical condition for plants by the addition of 400 pounds of bone meal and 200 pounds of nitrate of potash, evenly distributed to each acre and thoroughly worked into the soil before plants are set, the soil will then contain a well balanced plant food.

4. Number three also answers fourth question. We might also give you the the chemical composition of one ton of cattle manure, which is as follows:

Water	1550 pounds
Organic matter	406 pounds
Ashes	44 pounds

And when properly handled it will analyze,

Nitrogen	3⅗ per cent.
Potash	4 per cent.
Lime	3 per cent.
Phosphoric Acid	1½ per cent.

Thus it will be seen that the cattle droppings comes more nearly making a complete fertilizer for strawberries, when used alone, than the chicken droppings. A fertilizer to give best results in strawberry growing should analyze as follows:

Nitrogen	3 per cent.
Potash	9 per cent.
Phosphoric Acid	7 per cent.

A. H. F., Oregon City, Ore. Is the crown borer the same as the white grub? Is the borer hatched from a moth or does it stay in the ground?

2. Is it true that some varieties are more liable to its attacks than others, as my Brandywines and Texas suffered most, while Dornan, Climax and Sample were untouched?

The crown borer which is working upon your strawberry plants is the larva from the beetle family and is in no way related to the white grub. The larva is a whitish, footless, yellow-headed grub about one-fourth of an inch long, that lives in the crown of strawberry plants, hollowing them out so much that the plants are weakened and destroyed. The adult insect is a small dark colored snouted beetle, about one-fifth inch long. On account of the peculiar condition of its membranous wings, it is unable to fly; thus you will see that the only way the crown borer can be carried is in the plants. We wish to add a word in regard to the crown borer by way of caution: Never take plants from an infested bed. Always burn your patch over after the fruit is picked. The crown borer is an insect that has never been seen on The Strawberry farms.

2. One variety is no more apt to be attacked by the crown borer than another, that is the crown borer has no preference to any particular variety.

CLASSIFIED ADVERTISING COLUMN

CATTLE

PURE-BRED HOLSTEIN BULL CALF for sale. Born March 27th, 1907. Exceptionally good pedigree. Price reasonable. Send for detailed pedigree and photograph. Madison Cooper, 100 Court St., Watertown, N. Y.

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

FARMS AND LANDS FOR SALE

FOR $1,000, desirable home in Stoughton, Mass. House containing two tenements—6 rooms and 4 rooms. One-half acre of land, trees and shrubs, valuable asparagus bed, good market. Less than a mile from post office, not far from steam and electric cars. George H. Porter, Stoughton, Mass.

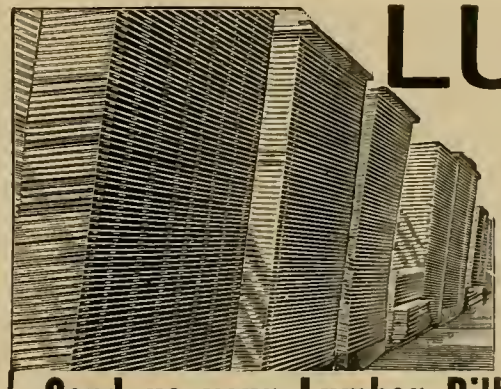
FOR SALE—40-acre fruit, vegetable and poultry farm, favorably located on a mountain stream of pure soft water; five miles from county seat; three other small towns and several mining camps within eight miles. Soil very fertile and new products of excellent quality and command good prices. Local market never has been fully supplied with home-grown fruit. Good business opportunity for an energetic man that has some help and of limited capital. Terms easy. For further information address T. P. Cox, Virginia City, Montana. 11

IF YOU WANT TO SELL, trade or buy a farm, send full description of what you have or want, with 25 cents, to the Farmers' Want Journal, Dept. 88, Kansas City, Mo., and we will advertiae it before 30,000 buyers and sellers and send you a copy of the paper. 10

THE finest small fruit farm for sale in Mahoning county. Manasses Flohr, New Springfield, Ohio. 9

POULTRY

WHITE WYANDOTTE stock for sale—Duston strain. Cockerels for $2.00 up. H. F. Hallett, Astfield, Mass. 10



LUMBER
BARGAIN PRICES.

A wonderful opportunity is offered you to buy lumber and building supplies of every kind at ***Prices that will save you big money.*** Such a chance seldom occurs. Lumber for your house, church, barn, meeting house, crib, store, factory, and in fact, buildings of every kind. We can furnish absolutely everything needed in construction material. Have your carpenter or builder make a complete list of everything you require, including Lumber, Sash Doors, Nails, Roofing, Siding, Ceiling, in fact, anything you may need in building material or merchandise of any kind.

Send us your Lumber Bill for Our Estimate.

We bought at Manufacturers' Sale over 50,000,000 Feet of all kinds of Lumber and Finishing Material. We are making special concessions, to those who buy at once. Even if you have no use for this lumber at once, it will pay you to buy now. Our prices will save you 30 to 50 per cent.

We cheerfully invite inspection of our Lumber stock and will be glad to have you come to our warehouse and yards at Chicago, see the lumber we are offering, and you will recognize that it is all what we say of it; make your own selection and see it loaded. It is not necessary to come to Chicago, we can easily sell you by mail. We can quickly convince you of the wisdom of placing an order with us. Just send us your lumber bill, and we will easily ***"Show You."*** On application we will send copies of letters from customers who have bought. They saved money why can't you? Write us to-day. ***WE PURCHASED EVERY EXPOSITION, INCLUDING THE $90,000,000 ST. LOUIS WORLDS' FAIR*** ASK FOR OUR FREE 500 PAGE CATALOG, No. C. H. 733. IT QUOTES LOW PRICES ON BUILDING MATERIAL, MACHINERY AND FURNITURE.

CHICAGO HOUSE WRECKING COMPANY, 35th and Iron Sts., CHICAGO.

Join Our Society!

THE FARMERS' ACCOUNTING SOCIETY

Accounting to make Your Farming Pay
Systems to show what Pays on the Farm

THE FARMERS' ACCOUNTING SOCIETY for Farmers, Fruit Growers and Stock Raisers was organized to meet the demand on part of the progressive and ambitious farmer for installing upon the farm and ranch the same **Up-to-date Business Methods and Accounting Systems** as are today being used by all money making and modern manufacturing and commercial enterprizes. Methods of Cost Accounting, Modernized Bookkeeping and improved Accounting Systems have within the last ten years shown themselves to be so advantageous and profitable that the big money making concerns of today find them an **absolute necessity.** The manufacturer positively could not do without them, no more can the farm be run at its best without these systems. Manufacturing Enterprizes and Mercantile Establishments have spent thousands of dollars to educate Cost Accountants and to install thorough accounting methods. **WHY? BECAUSE IT PAYS.**

Why not the Farmer take Advantage

of the SAME SYSTEMS AND DERIVE THE SAME BENEFITS FROM LEADING BUSINESS MEN AND EDUCATED COST ACCOUNTANTS

FARMING itself is just as much a business as is the manufacturing of farm implements for farm purposes. Success in farming does not depend upon hard work alone. Success in farming depends, also, upon good common sense, up-to-date business methods. The implement manufacturer produces drags, drills, plows, cultivators, etc. The farmer produces wheat, oats, butter, eggs, cattle, hogs, cotton, tobacco, etc. By means of improved accounting and cost systems the Implement Manufacturer knows, to a cent, the cost of each article he sells. **Why Shouldn't the Farmer be in possession of the same Ioformation in regard to the Cost of his Product?** Wouldn't you like to know exactly how much money you lost or made last year on your hay, your cattle, your corn, your fruit and every other article you produced? Wouldn't you like to stop raising those things upon which you are making little, if any, profit and put in your time upon those products which this Society's System of Books and Cost Accounting shows have paid well? Membership in **The Farmers' Accounting Society** will put you in possession of all this information. **The Farmers' Accounting Society is an organization for the purpose of introducing and installing upon the Farm and the Ranch the same Modern, Improved, Business and Cost Accounting Methods used by all Successful Manufacturing and Mercantile Institutions of today.**

The Plan of the Society

UPON request we will furnish parties interested an **Information Blank** which is to be filled out and returned to us. From this we learn the branch of farming you are engaged in and the conditions under which your farm is operated, which enables us to intelligently outline and submit prices on a system that will meet all requirements. Prices will include all books, forms, etc., the installation of our methods, and membership to our society which entitles the member to our services for a period of one year. Should our methods be adopted we furnish complete and explicit instructions as to how to keep them, and each member is at liberty to write us at any and all times during the period of membership regarding any questions that may arise pertaining to his cost accounting and bookkeeping system.

Our Motto—Thoroughness of Service.

You may expect from us no statements we cannot make good. Knowing your costs means increased profits as sure as the sun rises and sets.

Responsibility, Reliability and Guarantees

WE invite fullest investigation as to our trustworthyness and reliability and are at all times willing and pleased to furnish bank or commercial references. We **guarantee** that the work at the Home Office is conducted by prominent, practical Cost Accountants and Expert Bookkeepers who are engaged not only in our work but who have devised and installed methods and systems for Cost Accounting in some of the country's largest and most prominent manufacturing concerns the names of which will be cheerfully given upon request. We **guarantee** that the books and forms we furnish are of a quality, description, binding, completeness and value such as could not be duplicated in the open market for a price as small as the membership fee to our Association. And we **guarantee** that the same equipment and Cost Accounting information furnished to the members of our Association has cost many manufacturing and mercantile concerns (whose names we can furnish) from five hundred to one thousand dollars to install.

We have only told you a few things regarding the good this Society can do you, not only will it benefit you, but it will also afford to your children a business education. **Send your name and we will mail you information in detail. WRITE TODAY.**

The Farmers' Accounting Society

W. J. PREDMORE, President.

118 Portage Avenue. **THREE RIVERS, MICH.**

October 1907

THE STRAWBERRY

"The Lord might have made a better fruit than the strawberry—but He never did."

PUBLISHED BY

The Kellogg Publishing Company

THREE RIVERS, MICHIGAN

Special Announcement
to Strawberry Subscribers

WITH feelings of sincere regret the publishers of The Strawberry magazine are compelled to announce that with this issue The Strawberry ceases existence as a separate publication. The conditions which led to this action are many and pressing. The extraordinary development of the magazine into a publication of international interest, carried with it such a vast amount of labor and an infinitude of detail as to render it impossible for the editors and publishers to give the publication the time necessary to sustain that interest, while on the other hand, the rapid and very large growth of the R. M. Kellogg Co's. pedigree strawberry plant business made insistent demand for every moment of the time of the editors and active publishers of the magazine.

However, just at the time when they had determined to continue the publication notwithstanding these difficulties, and by the employment of additional help to accomplish the desired end, they were notified by the printer who has done so much for The Strawberry typographically that changes contemplated by him in his business would make it no longer possible for him to print the publication. Under these circumstances there was but one thing to do, and that was to make the best arrangements possible for the carrying out of the contracts with our subscribers and the members of our Correspondence School. With this idea in mind negotiations were entered into with the publishers of THE FRUITMAN AND GARDENER of Mt. Vernon, Iowa, and a contract was entered into under which The Strawberry will be merged with THE FRUITMAN AND GARDENER with the November issue, and all unexpired subscriptions to The Strawberry will be filled out by that publication.

THE FRUITMAN AND GARDENER is a general horticultural publication, giving information, instruction and advice on all lines pertaining to the broad subject which it represents. Our subscribers who are engaged in other lines of small fruit culture, or in truck farming or gardening, will find the publication of very large interest and value to them. Under the new arrangement Mr. Frank E. Beatty will continue to act as INSTRUCTOR IN THE CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE, answering questions in THE FRUITMAN AND GARDENER just as he has done through The Strawberry magazine. Therefore, while the members of the R. M. Kellogg Co. are no longer to be, either editorially or financially, responsible for the magazine or its amalgamated successor, the interest in its readers and in the work of furnishing them with information and advice that will insure success in the great field of strawberry production has in no degree been lessened, and both through THE FRUITMAN AND GARDENER and by mail direct from the Kellogg farm, as in the past, questions will be answered to every member of the Correspondence School. Thus may readers of The Strawberry be sure that not only will there be no loss to them because of this change, but that in many respects the new arrangement will be distinctly to their advantage. We cannot too cordially commend to our readers THE FRUITMAN AND GARDENER.

After October 20 the subscription books of The Strawberry will be in the office of THE FRUITMAN AND GARDENER, and all inquiries pertaining to subscription accounts should be addressed to that publication at Mt. Vernon, Ia., in order to receive prompt attention.

In bidding good-by to its hosts of friends, The Strawberry wishes to express the deep sense of obligation it is under to those whose kind words and generous sympathies and support have made its publication a pleasure. That each and all of these friends may realize their highest expectations in the field of strawberry production, and that long life and prosperity may be their portion, is the earnest hope of the publishers of

THE STRAWBERRY

THE STRAWBERRY

A MONTHLY MAGAZINE DEVOTED TO THE INTERESTS
OF STRAWBERRY PRODUCTION IN ALL ITS BRANCHES

Volume II No. 10 Three Rivers, Mich., October, 1907 $1.00 a Year

RESULTS achieved by strawberry growers during the season of 1907, when in many sections of the country all other fruits were unusually limited in quantity, furnish added proof to the fact so often set forth in these pages that in no other line of production is there greater stability or greater profits than in the growing of strawberries. And it doesn't seem to make much difference in what section of the country the strawberries that gave such excellent results were grown. In another place in this issue will be found the tabulated figures of returns received from his first acre of strawberries as given by Henry Clute of Hunt, N. Y., who received in actual cash $888.17 from his acre, while a large quantity was consumed for which no cash returns were received. Another New York member of The Strawberry family sold more than nine thousand quarts of high-grade fruit from an acre. H. B. Steward, proprietor of Highlands Fruit Farm, Myrtle Point, Ore., writes us that his picking season extended over five months of time and that his plants "yielded crops to exceed $1,500 per acre when sold at 50 cents a gallon. This may sound big," he continues, "but it is a fact that I picked two and a half gallons from a single plant during the season, and one of my August Luther plants yielded 286 berries, ranging from five to seven inches in circumference."

SCENE IN STRAWBERRY FIELD OF C. E. BEEKLEY, WEST SALEM, OHIO

The fact that it required forty-three pickers to take the berries from this field indicates an abundant yield of fruit

The possibilities of a long fruiting season are still further suggested in a letter from G. M. Hawley of La Mesa, California, who writes us under date of September 10 as follows: "In 1905 I planted 8,000 Brandywine plants in El Cajon valley. From this bed in 1906 I planted enough to make 60,000 plants, or about two acres when planted 10 x 20 inches. From these I sold that year $600 worth of berries. From this same bed I began picking commercially March 20, 1907, and continued until June 1, at which time I sold my home place, including these two acres of plants. At that date I had taken in from the patch $1,044. The plants have continued to bear and are still producing $60 per week, and look as though they might continue for several weeks. Up to September 1 the new owners—Eychaner & Moyer—have marketed $1,552, making for the bed to that date $2,596."

One incident of his experience in 1906 is related by Mr. Hawley. Referring to one of his fields upon which the foliage was particularly heavy and beautiful, he says: "About August 1, 1906 these had their foliage entirely cut off and all runner plants hoed up and were then given a good irrigation. They soon began to develop new leaves, followed by a heavy crop of berries which began ripening in November. In that month we had an unusually heavy frost which destroyed a portion of the crop, yet I sold over $50 worth in November and December. The fall berries were all large, taking eighteen to thirty berries for a pint box. The day before Christmas I packed forty one-pound candy boxes with berries containing from eight to fifteen to a box. These were decorated with leaves and blossoms and brought twenty-five cents each. I treated only a small part of the patch in this way, but these have continued to give me the best early spring and continuous summer results. The rest of the patch was left in matted row until February when all runners were cut and plants between the rows dug up."

The importance of reports of this kind may not be overestimated. Take Mr. Clute's report, for example: how many men, seeking some way in which to establish themselves in an independent and productive home will be encouraged by such an experience as this novice reports? More than $900 from his first acre of strawberries! Of course, everybody is not going to secure such results as that, for everybody isn't going to show the plain common sense exhibited by this novice, who went about his work with a copy of The Strawberry in his hand, studying the reason "why" and learning the "how" of it by actual experience in his strawberry field. Just as manual training educates the eye, the hand and the mind all at the same time, so does intelligent reading, accompanied by actual practice in the field, develop what we may call scientific horticulture. All work and no study keeps Jack a dull good-for-nothing, if we may paraphrase an old maxim. All study and no work produces an impractical mind and an unpracticed hand. Books and brawn, brain and muscle, make a combination that win everywhere all the time. So, while everybody is not likely to duplicate Mr. Clute's experience, it isn't because everybody couldn't do it; for if everybody followed Mr. Clute's way, and selected good soil, set out good plants and practiced good cultural methods he would do just what out friend has done when it came to fruiting time!

And another sort of report that pleases us comes in a letter

just as we are writing this. It comes from Harry Lavender of Monroe, Mich., and he says: "I have already had an offer of 15 cents a quart for my acre of next season's crop of strawberries, but I have refused it." Mr. Lavender is another novice who is making a big success with strawberries. He will set out 6,000 more plants next spring, and says: "Next spring one acre, and in the following years two acres to the season is my motto."

Surely, such experiences as these must encourage our friends, and those of little faith need again to be told that "by faith may the mountains be removed"—even those dark and sombre mountains of doubt, that rise sky high in the mind and shut out all the brightness and beauty surrounding. Cheer up! The strawberry grower has troubles of his own, perhaps, but he has the best business and the most certain of any man who tills the soil, and the soil tillers are in very truth the salt of the earth!

REPORTS from Oregon indicate that the fruit crop in that state is bringing in much more money to those engaged in the industry this season than it yielded last year. In 1906 Oregon fruits were valued at $2,875,160. Just what the increase will be it is not yet possible to determine, but the total will be above $3,000,000. Apples, the chief item in the list of fruits, will bring an average of 50 cents a box higher this year than last. This increase applies to all products of the orchard. Bartlett pears netted the grower $2.25 a box as compared with $1.25 last fall.

Fall Treatment of Strawberry Beds

By E. L. Keasey
In Orange Judd Farmer

UNDER this topic we must take for granted that the plants are already raised and that the methods employed from now on are for winter protection, rather than cultural. Middle and northern latitudes require treatment for strawberries differing from that of the south. The rigors of winter and the heaving frosts of fall and spring force the grower of these plants to seek out a protection.

Culture in the latitudes mentioned usually ends the first weeks in August, at which time the strawberry beds are seeded. This system, it seems to me, is the most sensible, as it is by far the cheapest, and its results are almost always pleasing.

At the last cultivation oats or barley are sown broadcast over the patch and thoroughly worked into the soil with a fine-toothed cultivator. Either of these grains should be sown about the same as for regular field culture, using about two bushels per acre. Those using the barley claim for it a heavier growth, which in itself is an important feature, as the aim of this seeding system is to form a mulch for winter protection of the plants. I, however, use oats, not that they are better, but that I can get them cheaper and easier.

The object in using these two grains is that they are killed by hard frosts; thus they do not continue through the winter, or in any way interfere with the picking of the crop the following season, as would rye or wheat. If barley is used one should be sure to use spring barley. This cover, or mulch crop, under fair conditions, will attain a growth of from eight to twelve inches before freezing weather comes. When killed, the plants settle down close to the strawberry plants, thus furnishing an excellent protection and leaving no weed seed with which to harass the grower the following season.

Coarse stable manure is very often recommended as a mulch for strawberries, but one who is posted is almost sure to brand the author of said recommendation as being more of a writer than a practitioner. Manure is a prolific breeder of weeds, and the careful grower of strawberries soon learns the penalty that awaits him who uses stable manure as a mulch for berries.

There is a better way of mulching strawberries than either of the above, if one can secure the material, and that is with straw. But in the Michigan fruit belt straw is more expensive than is hay, thus this system becomes at once prohibitive. Mulching with either straw or manure should not be attempted until after freezing weather sets in, when, in the case of straw, it can be applied to a depth of about four inches over the entire patch. With the manure it must be more sparingly used.

The straw mulch is to be recommended where the material is obtainable, as it has a value beyond the mere protection it gives during the winter. When spring comes the straw can be left on the vines until quite late, thus retarding the blossoming period, which in turn heads off late spring frosts, also making the crop several days later than would be the case without the mulch.

Straw has another advantage in that when it is raked off the rows in spring and left between them it conserves moisture, also prevents the dashing of sand upon the berries during heavy rains; but, strange to say, with all that is said and written about the fall mulch for strawberries, not one grower in a hundred ever resorts to this splendid system.

MR. KEASEY intimates that any grower who is posted would never use stable manure for mulching on account of its containing much weed seed. This, of course, would be true where precautionary measures were neglected, but when properly used the grower never will be troubled with weeds when stable manure is used, any more than he would with straw or any other mulching. When mulching the plants with stable manure the coarse, strawy material should be placed directly over the rows, and the finer parts of the manure should be placed in the spaces between the rows. And it should remain so until growth starts in the spring, at which time the coarse material should be parted so that the plants can come up through it, and the coarsest of the material that lays between the rows should be raked up along each side of the row. Placed in this way the mulch will be heavy enough along the rows to prevent any weeds from coming through it. Then, when all danger of frost is past, the cultivator should be run through the bare space left between the rows. This will mix the finer manure

Williams' Shaving Soap

DON'T go on year after year using common soap for shaving, not only taking big risks, but robbing yourself of the comfort and ease and pleasure that would be yours if you used Williams' Shaving Soap. Made just for shaving by those who have learned by 60 years' experience just how to make shaving soap right.

"The only kind that won't smart or dry on the face."

Send 2c. stamp for a TRIAL CAKE of Williams' Shaving Soap, or 4c. for a Williams' Shaving Stick, trial size, enough for 50 shaves. Address

THE J. B. WILLIAMS COMPANY
Department A, GLASTONBURY, CONN.

Williams' Shaving Stick

A TWENTY-ACRE FIELD OF THOROUGHBREDS

AMONG the most successful growers of late strawberries is the firm of Daniel Niemeier & Son at Ontonagon, Mich., whose field of twenty acres is the wonder and admiration of the Lake Superior country. So proud are the people of Ontonagon of this "institution" that they send out beautiful post-card views of it, and from one of these sent us by Mr. Niemeier the above half-tone illustration is made.

in with the soil and will create a dust mulch that will hold about 50 per cent more moisture than any other kind of mulch that could be used.

This cultivation also will aerate the soil, aiding it to hold an even temperature, so that the bacterial germs will work more actively than they would if the soil was not cultivated at all. No matter what kind of mulch is used, there is bound to be some weeds develop as a result. But when stable manure is used in the way we describe here there will be none except a few that might come up directly in the row of the plants, and these are easily gotten rid of by pulling them up after a rain. Stable manure has been used for mulching on the farm of The Strawberry for many years and always has proved entirely satisfactory. It is true that wheat straw has its preference over anything else, but this material cannot always be secured.

As to sowing oats and barley between the rows of strawberry plants to act as a mulch, we would say that much depends upon the season if this method would prove successful. The seed should be sown the latter part of July or first of August, at which time we do not know whether the fall is to be wet or dry. If dry weather prevails, this material will make such a small growth that it will not serve its purpose as mulching; besides it will rob the plants of the moisture they need to develop their fruit-bud system. If the season should be wet after the seed is sown, it will play an important part, as it would take up the surplus moisture which, of course, aids the plants in building up a heavy fruit-bud system, rather than to extend its energies to the over-production of useless foliage and runners.

Mr. Keasey's article is good common-sense, and we have read it with pleasure. What we have said is not by way of criticism, but only to comment upon and suggest concerning certain points.

THE peach crop for 1907 was short, but toward the close of the season dealers found more fruit offered than they had anticipated. Arkansas had a big crop, Missouri a fair crop, but Michigan failed almost entirely. The Georgia crop was reported destroyed, but on the first of August the railroads found themselves unable to take care of the offerings. The Connecticut and Delaware crops were only about 25 per cent of the average. It is said it will be years before Michigan will recover her old position in the peach-production column, owing to the disastrous effects of the frosts of last autumn and winter.

When Strawberry Growing is a Joy

By Professor George S. Innis
In Farm, Stock and Home

A YEAR ago I determined to raise some strawberries, to do the work carefully and to report results for the possible benefit it might be to others. First I selected a spot in the garden about 35 by 60 feet and cleared it of raspberry sprouts, plum trees and whatever would in any way shade the ground. Then I dug up the rows with a grub hoe, throwing the ground a little toward the center and raking it off so as to leave the rows about an inch above the path between. The first row I planted to Brandywines because they are strong, vigorous growers, the best able to fill that difficult place. Then I planted in order Dunlap, Sample, Splendid and Warfield, and after them one-half rows each of Bederwood and Wolverton, Haverland and Oregon, Tennessee and Klondike, Dornan and Midnight, Texas and Parson's Beauty, Pride of Michigan and Glen Mary, and a full row of August Luther. The soil is a sandy loam, well enriched. During the summer and early fall I was careful to set new plants so as to make a row a little over a foot wide and the plants six or eight inches from each other. I covered in November with straw about an inch thick and left it till late in the spring. Some plants may be smothered, but I am more concerned about their being frozen out. I notice that when I put raspberry bushes down over the strawberry plants, covered with straw and dirt both, the plants come out in good shape while others beside them are killed. So put the mulching on loosely, fairly thick and let it stay till you open the doors and windows of your house to welcome the balmy days of spring.

With the highly bred, twenty-year pedigree plants now advertised raising strawberries is an exhilaration. You set out your plants, hasten in to get a rocking chair, and sit and sing and watch them grow. First the runners peeping forth, then the new plants, the blossoms, the

FRANCIS B. HARRINGTON OF WORCESTER, MASS., GROWS FINE STRAWBERRIES

STRAWBERRIES DO WELL IN KANSAS—FIELD OF L. L. ALLIS AT MANHATTAN

green berries, the ripe fruit and the garden of Eden restored! The only difficulty is one needs the family wash tub to hold them when they once get to ripening. It was really a delightful sight to see the berries form, the path between each two rows being literally lined with them. They ripened late this year, the August Luther, Texas, Bederwood and Dunlap June 29; three days later the Sample, Splendid, Warfield, Wolverton, Haverland and Tennessee, and the Brandywine, Parson's Beauty, Glen Mary, Pride of Michigan, Dornan, Oregon and Klondike three days later, the Midnight coming last of all. They ceased bearing in about the same order, except that the Brandywine is a great berry to hold on, furnishing several highly appreciated meals after the others were mostly gone.

Of all the varieties planted I should place first the Sample, giving it clear lead. It is a pistillate, vigorous, not very sour, producing a large number of very fine berries. If one wants a little more character to his strawberries he can put in a few Brandywines or Splendids with the Samples, put on plenty of cream and sugar and not envy Queen Elizabeth with all her monopolies. As next in value I would name the Splendid, Brandywine, Haverland, Dunlap, Tennessee, Warfield. The last, like the Bederwood, is an abundant bearer, but not usually of large size. For a small patch of berries with few varieties I would suggest planting a row each of Brandywines, Samples and Splendid, and then another row of Samples and one of Dunlaps. To these might be added a row each of Haverland and Tennessee, and as many of other varieties as one wants to try. The Klondike appears to be the best of the new varieties.

There are four essentials for a really fine crop of strawberries: good soil, well tilled; good plants of standard varieties, plenty of water and unrestricted sunshine. One must even lay an embargo on the good house-wife standing in the back yard and having one of those delightful morning chats with her neighbor before the breakfast dishes are washed, if it will cast a shadow on the strawberry patch. I could reach about two-thirds of my patch with the garden hose and in the evening after picking I would give them a good watering. While the part not reached produced some good berries, the nearer ends of the rows were dazzling with the large, red berries peeping out from the green leaves. As the water bill for the month was only 20 cents more than the minimum charge the expense was but trifling. I have never taken so much pains with a strawberry patch, and never had such a crop of berries, gallons and gallons of the very finest, calling in several neighbors and bidding them pick to their heart's content. I wish others would give their experience, for we are under obligations to every man with a garden in the Northwest to compel him to provide for his family an abundance of this delicious and healthy fruit.

Hamline University, Minn.

⚜ ⚜

ONE of the rare books dealing with plant life, and which appeals with especial force to the student of horticulture in its higher and variable forms is "Plant Breeding", the work of the distinguished Dutch scientist whose fame is world-wide, Hugo DeVries, professor of botany in the University of Amsterdam. The book is more directly concerned with the experiments of Dr. Hjalmar Nilsson, the famous Swedish scientist occupying the post of director of the Swedish Agricultural Experiment Station at Svalof, and of our own popular searcher of the mysteries and possibilities of the plant world, Luther Burbank. The book is from the press of the Open Court Publishing Co., Chicago, and like everything else emanating from that source, is a combination of literary and scientific worth with excellent typography and the bookmaker's skill. No review of this book may do it justice, for every page of it contains matter of profound interest to the investigator. But it may in a word be said to stand as a statement of the actual results thus far achieved by science in the direction of positive knowledge relating to this subject of such vital importance to the world. It is a book, therefore, that every scientific student interested in this subject should have on his library shelf. The price of the book is $1.50.

⚜ ⚜

CONCERNING the white grub and his influence upon the strawberry, M. N. Edgerton has the following in the American Farm World for September: The grub begins his work as soon as the plants are set and continues his operations throughout the life of the plantation. As this strawberry pest works on the roots of the plants only, there is no chance to reach his case with arsenites. The only thing to do is to hunt him out and kill him. This may seem to be something of a job, but it is the only way out. If a plant appears to be wilting or out of condition, not keeping up with its fellows, nine chances in ten a grub will be feeding on its roots. It is not often that his presence can be detected in time to save the plant in a condition that will warrant its retention in the row of plants. However, by destroying the grub other plants in the row may be saved. As these grubs have ferocious appetites, a single specimen may be responsible for a large vacancy. By having a piece of ground under cultivation two or three years previous to setting to strawberry plants there will be a comparatively small loss from this source, but we never yet had a plantation that was perfectly free from this pest. We annually save many plants by keeping an eye open for signs of his workings.

⚜ ⚜

IRELAND is returning the compliment. It was the famine on the Emerald Isle of many years ago that led us to send to the afflicted people vast quantities of the tubers that gave to them the popular name of the "Irish" potato. Now the people of Ireland grow so many of them that there is a prospect that they will export large quantities to this country before spring.

⚜ ⚜

EVERY truck grower of Texas is now required to stamp his name on every crate containing his products, in order that the responsibility for shipping goods below grade will be placed where it belongs. Which is just as it should be in every state of the Union.

⚜ ⚜

TOTAL exports of bananas from Costa Rica in 1906 amounted to 8,872,729 bunches, valued at $4,436,364.

STRAWBERRY PATCH IN LINN COUNTY, WESTERN OREGON

Oregon Strawberries the Young Man's Opportunity

By C. A. Warren
President Warren Publicity Company

MANY Eastern people wonder if we can raise strawberries in western Oregon to a profitable extent. The best proof that western Oregon is the natural home for the strawberry is found in the fact that nowhere else is there such an abundance of wild strawberries: on hillside and in the valleys wild berries grow in countless numbers.

Western Oregon is destined to become the seat of the greatest strawberry industry the world has ever known. Even now our finest berries are demanded in the markets of the Atlantic coast. The canning industry has hardly been thought of out here.

Our soil and climate are perfect for the production of the finest strawberries ever grown. The strawberry is more popular today than the orange, and that industry is now paying our great transportation lines over $25,000,000 annually to haul the product to market from California. The climate in western Oregon is ever mild in the winter; the autumn is delightful; the summers are pleasant, with cool nights.

Land is not high priced here. The best of strawberry soil can be had from $15 to $100 per acre within a reasonable distance of market. With five acres a man can make a good living and with ten acres he can lay up money.

The world already knows of the fame of Oregon's Hood River strawberries. The world will soon long for the flavor and taste of the best strawberries known, those that can be raised in most portions of western Oregon. The large fields now of commercial importance, in addition to those of Hood River, are found in Marion

A STRAWBERRY FIELD IN THE HOOD RIVER VALLEY OF OREGON

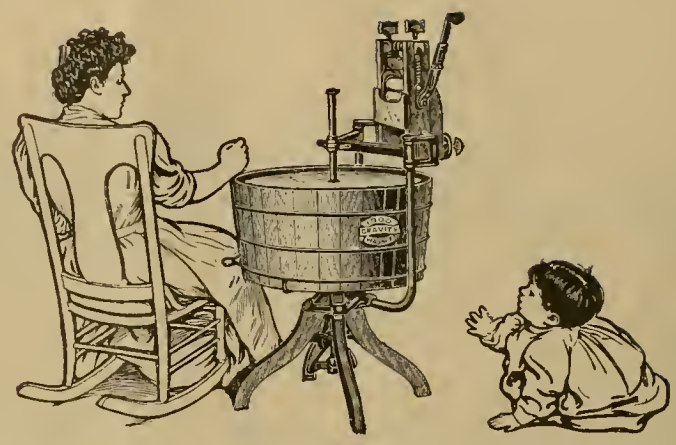
and Linn counties. Here we have the possibility of the perfection of a great industry, yet only in its infancy. The young man who comes from the East to western Oregon will find varied occupations open to him; there is no opening so promising, so pleasant and so interesting as the cultivation of strawberries for market purposes.

The young man will find himself soon an important factor in any community where he establishes a strawberry farm, be it only five acres in extent, because he who plants a new industry in that particular community is a public benefactor. It means the employment of people not before employed; the use of what was once idle land, for a profitable purpose. It will improve the industrial life of the community. It assists industrial art to firmly establish a profitable and helpful enterprise. Not only will it be to the special benefit of the few, but it will add to the horticultural strength of the state.

If more of the young men in the densely populated cities in the East would leave the drudgery of the offices and factories and come to this country, live close to nature and commence the raising of strawberries for commercial purposes, and work half as hard for a year as they are compelled to do in Eastern cities, they will be independent in five years; and with good behavior men whose counsel is honored and whose society is courted by the best people of our Oregon country.

The writer is intensely interested in the development of the Oregon country because the opportunity is here for the man with courage and small means; especially would I recommend this climate and country to the young energetic man of the East and Middle West. Oregon is calling you. Her fields, many of them yet undisturbed by the plow, will raise the most perfect strawberries ever sold in an American market.

Portland, Oregon.



Easy Washing in 6 Minutes

HERE is a washer that washes a tubful of dirty clothes clean in six minutes

All you do is sit beside the washer and help it with gentle pushes and pulls that take hardly any effort at all.

The little patent links under the tub do most of the real work of the washing.

They keep the tub swinging back and forth and up and down with a "tip-turning"—or "oscillating" motion which sends the hot, soapy water in the tub swirling over, and under, and round the clothes until all the dirt is washed out.

Your clothes are *held still*—so they can't possibly be injured.

There is nothing to pull and haul your clothes about—nothing to beat nor pound them—nothing to wear nor tear them.

You can wash laces in a 1900 Gravity Washer and never injure a mesh.

And you can wash quilts and rugs and carpets without tiring yourself.

The 1900 Gravity Washer washes so quickly—so easily—and so thoroughly that any ordinary wash will be on the line early wash-day morning.

And you won't be "all beat out" when the washing is finished. For there isn't enough work to tire even a very delicate woman.

You won't be "steam soaked." For the steam is kept in the washer to help wash the clothes clean.

Thus your health is protected. You are kept from exposure.

Of course the savings effected by a 1900 Gravity Washer—savings of time and strength and wear on clothes—are worth a lot to you.

And the 1900 Gravity Washer is the *only* washer that effects such savings, because these savings are all due to *the working parts* of the washer, which make it wash quickly and easily, *while the clothes are held still.*

The working parts of the 1900 Gravity Washer cannot be imitated, **because they are patented.**

I have sold thousands and thousands of my Washers during the past few years.

Thousands and thousands of pleased women users can tell you how my washers save.

But I don't ask you to take even the testimony of actual users of my washers.

I say "*Prove* a 1900 Gravity Washer *for yourself and—at my expense.*"

I will send a washer to any responsible party *and prepay the freight.*

I will ship you a washer promptly so you can have it at once. You don't have to send me a copper in advance.

All you do is take the washer and use it a month.

Do four weeks' washings with it.

And if you don't find the 1900 Gravity Washer all I claim—if it doesn't save exactly as I say—if it doesn't wash quicker, and easier, and better, and more economically than you have ever washed before—don't keep the washer.

Just tell me you don't want it, and that will settle the matter.

The test *shan't cost you a penny.*

Your month's use of the washer is—FREE.

If you want to keep my washer—if you are pleased and satisfied—if you see where the washer will save time and strength and clothes—and, in that way save money enough to pay for itself in a few months—why, I will let you **Pay for the Washer as It Saves for You.**

Pay by the week—or the month—please yourself.

This way you really **Let the Washer Pay for Itself Out of What It Saves.**

Send today for my New Illustrated Washer Book. **It is FREE.**

Your name and address on a post card mailed at once brings the Book *by return mail, postpaid.*

Write now. Find out all there is to know about *the* **only** *washer that saves your time, strength and clothes—protects your health and your pocketbook—and* **Pays for Itself by Its Saving.**

Write to me, "Address R. F. Bieber, Manager 1900 Washer Co. 771 Henry St., Binghamton, N. Y. Or—if you live in Canada, write to "The Canadian 1900 Washer Co.," 355 Yonge St., Toronto, Ontario

Why Barnyard Manure is the Best Fertilizer

FREQUENTLY the inquiry comes to us, "Why is it that The Strawberry always urges the use of barnyard manure in preference to any other fertilizer?" There are many reasons. As a fertilizer it is without doubt the best balanced and the least costly of anything obtainable, even though the price in some localities appears very high. But it is much more than a fertilizer. It is a soil-renovator, for one thing, cleansing the soil of the toxic influences remaining after a crop has been grown.

But perhaps its greatest value is suggested in the following remarks from several sources regarding the importance of organic matter in the soil to successful production and the maintenance of fertility and the conservation of moisture in the soil. And it is organic matter that is supplied by barnyard manure to a degree that no other fertilizer may do.

Prof. J. G. Mosier of the University of Illinois says that organic matter is the only constituent in a soil that varies. The amount of sand, silt or clay will always be the same, but the organic content may be increased or diminished according to the method of farming practiced.

For its effect on moisture alone the organic-matter content should be maintained, by all means, but when we take into account the fact that it is the source of the nitrogen for most plants, and probably much of the phosphorus for all plants, it becomes of double importance.

Professor Snyder of Minnesota, says: "A soil which by long cultivation has lost one-half of its organic matter shows a loss of ten to twenty-five per cent of its water-holding power."

Professor Whitcombe of the Oregon experiment station, in speaking of the semi-arid region in eastern Oregon, says: "While from eight to twelve inches of precipitation may be sufficient to produce a good crop of wheat now, later, when the organic matter becomes reduced, a great deal more moisture will be required, as the soil will be less capable of retaining moisture."

There is one other factor in the conservation of moisture, and that is weeds, concludes Professor Mosier. Remember, when you see a weed growing on your farm, that every pound of dry matter in that weed probably has required from 400 to 750 pounds of water to produce it. It will not take a very large weed to remove a tenth of a ton of water.

CALIFORNIA'S new orange crop is promising. One expert reports in the California Fruit Grower as follows: "The outlook for the new crop is fine, on the whole, but the orchards are spotted, some of the groves having very light crops on them. Taken as a whole, however, there is more fruit than last year, and with normal sizes we will ship from southern California about the same number of cars as last year. Of course, last year the fruit was abnormally large, thus giving a great increase in the number of cars for what looked to be a small crop early in the season. Of course, if the oranges grow

PICKERS AT WORK IN THE STRAWBERRY FIELD OF J. H. WELLS, LAKE VILLAGE, IND.

large, as they did last year, there will be big shipments. But the fruit now looks as though it would be of fine size, and if it should mature normally the markets will be fine. All over the country there seems to be a universal desire on the part of the growers to get the groves into the highest state of cultivation. Never before have I seen the orange groves so well cared for. Clean culture is found everywhere, and this means better fruit as well as more of it."

Strawberry Success on Reclaimed Swamp Land

By Frank E. Beatty

THE scene at the top of this page is a photo-reproduction of the berry pickers at work in the strawberry field which forms a part of the fruit farm of J. H. Wells at Lake Village, Ind., and the large cover-page picture of this issue shows his pickers at lunch time. It was my pleasure to visit this fine fruit farm in mid-September, and though it was too late to get any strawberries, I was just in time to get some of the finest and sweetest water melons I ever ate.

This farm is located about fifty miles south of Chicago in what were once known as the Kankakee swamps, but which, by a complete drainage system, have become of incalculable agricultural value and the center of very large horticultural, general farming and live-stock industries. In connection with his berry growing Mr. Wells also conducts an extensive truck farm. The day I was there he, with a large force of men, was engaged in gathering cucumbers for a local pickle factory. About eighty bushels of cucumbers per day were then being gathered on his place and made into pickles.

The field of water melons on this farm was indeed a great sight. The melons ranged from thirty to sixty pounds in weight and laid so close together that one actually could go over the entire field walking on melons every step of the way.

Mr. Wells' strawberries have become famous, and he finds ready sale for his entire output at $2 net for sixteen-quart crates These are all sold in small towns lying within near-by distances from the farm. So successful has he been in the raising of strawberries that he intends to set a much larger acreage in the spring of 1908.

We found Mr. Wells a genial and courteous gentleman. Every visitor to his farm goes away with the idea that he is not only a most successful farmer and fruitman, but an enterprising citizen as well. He believes in feeding his visitors well on the products of his fields, and this generous treatment is of itself an advertisement of the highest value. The water melon he cut for me was big enough, I thought, for a dozen, but there was little of it left when I quit.

I was greatly impressed with the section and its possibilities in a horticultural way; and it certainly is a fine example of reclaimed land and suggestive of what may be accomplished by proper drainage.

One Beginner's First Crop

By Henry Clute

THINKING that my first venture in strawberry raising might interest some of the readers of The Strawberry, I am sending you herewith a record of my first crop. I am led to do this because I know how helpful and interesting to me have been articles of this nature from other growers. I find a number of things in every issue of the magazine that are of greater value to me than the entire year's subscription. When I first thought of trying the strawberry business, I was wishing that there was just such a publication, and when a friend told me of The Strawberry I was not long in finding out for myself just what a fine periodical it is, and it has proved a great help to me and a ready source of information for almost anything I want to know about strawberry production.

I think the Correspondence School a grand thing for all strawberry folks. If I am a little in doubt about any point, all I have to do usually, is to refer to some back number of The Strawberry, for I keep them all, and am very choice of them, too.

Well, to tell my story: In the spring of 1906 I made up my mind to set an acre to strawberry plants and give them a trial, and so fitted up the land and set it out to Brandywine and Sample, and although I had rather bad luck to start with, I think that on the whole it has proved quite a satisfactory venture, as you will see by the following statement of what I raised and marketed from the acre this year:

Date	No. Quarts	Price	Amt.
July 3	56	14 cents	$ 7.84
July 5	258	12, 13, 14 cents	34.89
July 6	242	14 cents	33.88
July 8	756	11, 15 cents	85.53
July 9	1009	8, 12, 14 cents	82.56
July 10	772	9, 11 cents	77.80
July 11	224	9, 10 cents	20.52
July 12	929	9, 10, 11 cents	95.52
July 13	890	10, 11 cents	93.28
July 15	844	10, 11 cents	91.53
July 16	799	11, 12 cents	87.20
July 17	82	10, 12 cents	8.94
July 18	517	11, 12 cents	60.84
July 19	542	11, 12 cents	57.49
July 22	304	11, 12 cents	34.34
July 23	177	10, 11 cents	16.01
	8,401		$888.17

This statement includes only what was grown and sold. What was eaten and given away, and that was no small quantity, for everybody that came to the yard was welcome to all they wanted to eat

The Famous PAGE FENCE

The Pioneer Woven Wire Fence is the best fence in the world for any purpose. Twenty-five years of experience, science and skill in every rod of a Page. Twice as strong, durable and economical as any other fence. Requires but few posts. It means money to you to learn about a Page Fence. Folder and Catalog free Write a postal for them now.

PAGE WOVEN WIRE FENCE CO.
Box 1015, Adrian, Mich.

and the pickers had all they wanted to eat while picking and with their dinner. Then there were two families to use all they wanted and we were both great strawberry eaters. About every day from the first day we could get enough for a short-cake until the day I mowed over the vines, we must have a short-cake and strawberries for sauce; so you see that was something of an item. But taking it altogether I am quite well satisfied with my first crop—so well that I have another acre set out this spring which are looking fine, I think; and people going along the road stop to admire them and tell me how fine they think they are looking, and that naturally makes me feel quite proud of them.

We had no rain here from about the 8th of July until about the 1st of September, but thorough cultivation kept the plants growing right along, and I don't think there is a weed in the piece large enough to be seen two rods away. But I guess I have given you enough of my experience for this time. Perhaps, if you think it worth while and that it will be of any interest to you or any of the readers of The Strawberry, I will tell you some other time of my way or raising and marketing them and how I get on with acre No. 2.

Hunt, N. Y.

WE think it hardly necessary to say that all our readers will be glad to hear further from the man who received $888.17 in cash for his first acre of strawberries, with perhaps $50 more worth of them consumed on the place. We are very sure, indeed, that every reader of The Strawberry will be interested not only to know how it was done, but will be inspired by the record here given to go forward with more confidence than ever before in his work. The figures show that he received 10½ cents plus for his berries. Let what Mr. Clute says about the effect of thorough cultivation during a drought sink deeply into your consciousness. That is exactly what we mean when we say that in large part we may make our own conditions. When nature is shy with her favors and holds back the gentle rains of heaven, we can take the cultivator and the hoe and stir the surface of the soil, preserving a continuous dust mulch and thus so conserve the moisture in the soil that the plants shall suffer not at all from the influence of the prevailing drought.

By the way, The Strawberry had a visit the other day from John Rucker of Boston, N. Y., a member of The Strawberry family who has contributed in the past some of the finest photographs of his fields for the benefit of fellow-members. Mr. Rucker sold more than 9,000 quarts of strawberries from a single acre this season, and had he received as high a figure for his product as did Mr. Clute, would have netted $950 from his acre. However, he sold through commission houses and his net income from that particular acre was about $800. He is confident that next year he will do still better.

One California reader reports more than $1,000 an acre up to September 1, with picking still continuing, and an Oregon reader writes that he took more than $1,500 from a single acre of August Luthers. In the case of both the Oregon and California growers, the season extended through many weeks of time. But the $1,000-an-acre man is at hand even in the land where the strawberry may be gathered for a few weeks only in midsummer. Let every one of us work for the realization of this ideal.

COLORADO pear growers received as high as $1,300 a car for their fruit this season. They naturally view the poor-crop situation with a degree of equanimity not possible in the case of Eastern pear growers.

SPEAKING OF SPRAYING
Don't forget that the
Wallace Power Sprayers
Are made in all styles with a
Special Pattern for Berries and Vegetables
Full Information Furnished on Application
WALLACE MACHINERY CO., Champaign, Ill.

THIS COMPANY
does a general real estate and loan business. A specialty of looking up good farming lands and locating eastern people on them; let us hear from you—we can serve you.
EUREKA LAND CO.
411 Buchanan Bldg., Portland, Oregon

15,000,000 Strawberry Plants
For Fall Setting

WE say fall planting is best and we can show you why if you drop us a card for our large fall price list. We sold over 1,500,000 plants last fall and have many calls now for prices for fall setting. Send today for our list. Seventy-five varieties.
Cabbage plants, and Fertilizers for the fruit grower.

J. A. BAUER
Box No. 1. JUDSONIA, ARK.

Multiply This in Your Head

Wouldn't you like to be able to figure this and hundreds of other similar problems in your head? Wouldn't you like to be able to add, subtract, multiply, and divide any problem almost instantly without writing any partial product—to be able to simply write the answer?

Our Free Book, "Rapid Calculation"

thoroughly explains a method which will make you a master of figures. It describes a system by which you can figure instantly the most intricate sums in your head; handle groups of figures and fractions as easily as single whole figures; in fact, cut the work of figuring in two.

A better position and a large salary have come to hundreds who have read this book. If you want to better your position, to increase your salary, to make yourself worth more to yourself and your employer, to hold the whip-hand in financial transactions, to make your work easy and interesting instead of tiresome, you should write for this book at once. It will cost you nothing but the trouble of asking for it. A postal will bring it to your very door. It may cost you a good position or a valuable promotion to neglect this opportunity. Write for it today before you forget it. Address

COMMERCIAL CORRESPONDENCE SCHOOLS, 85A Commercial Bldg. Rochester, N. Y.

FRUIT TRACTS FOR HOMES CLOSE TO THRIVING CITY
Make Money with Ease and Comfort in Suburbs of delightful
LEWISTON—CLARKSTON

Idaho ***Washington***

Mild Winters. Long Summers. Clear Mountain Sunshine. LOW ALTITUDE—Head of river navigation in Columbia-Snake valley; 25,000 square miles of rich tributary territory. For over a generation its fancy fruits have been bringing highest prices and paying $200 to $1000 net per acre. Pure mountain water PIPED UNDER PRESSURE to every tract by $2,000,000 irrigation works, one of finest in world. No blizzards; no severe storms; no malaria; no asthma; no consumption. Finest educational facilities. All of our claims guaranteed. Investigate this long-established fruit colony before buying.

Just write for Pamphlet No. 110 or send 15c for panoramic photogravure, 8x36 in. postpaid in tube.
DEVELOPMENT LEAGUE, Lewiston, Idaho, or Clarkston, Wash.

OUR CORRESPONDENCE SCHOOL OF STRAWBERRY CULTURE

WHERE THE MEMBERS OF THE SCHOOL AND THE INSTRUCTOR IN CULTURAL METHODS MEET

PRACTICAL LESSONS TAUGHT PERTAINING TO THE SCIENCE OF STRAWBERRY PRODUCTION

WITH the return of cooler weather, we note a decided increase of interest on the part of the members of this school in the work of strawberry culture, and we are sure all the members will enjoy the questions which appear in this issue. If some of our older members discover in this issue questions and answers which in one form or another have appeared in previous issues, it will not be surprising, and we may repeat what we have said, at least once before, that some of our reasons for repeating matter which may have appeared in previous issues, is that it is new matter to many of our new members, while thousands of our old members read these instructions in the light of recent experiences with greater understanding. As a matter of fact, it is the repetition of lessons—"line upon line"—that fix the facts firmly in the mind of the learner, until they become a part of his mental equipment for the particular work in which he is engaged.

Then, again, the people are being educated up to the point where they are demanding higher results from the strawberry field. It is within the memory of our younger generation of strawberry growers, that a man who netted $100.00 an acre from his strawberry field, considered himself a successful grower. Today the man who takes anything less than $500.00 from an acre is dissatisfied with results; the man who receives from $750.00 to $1,000.00 from an acre is no longer a curiosity, and the man who under some conditions receives as high as $1,200.00 to $1,500.00 from an acre, now writes his name upon the records of strawberry production.

The other day we received a letter from a man who raised more than $900.00 worth of strawberries from the first acre he ever grew, and he said that it was all due to instructions he received through The Strawberry. "Whenever I was in doubt," he writes, "I simply turned to my back numbers of The Strawberry and found there just the information I needed to meet the particular emergency." That statement is not only very gratifying to us, but it suggests how great are the possibilities in this direction, where the instructions given in this publication are faithfully followed out.

Now that the time is come when we may sit down and study these instructions, we hope that every member of the school will read over again and again the facts and learn to distinguish the fine points which underlie the general statements which are made; learn to fit these instructions into the particular conditions of climate, soil, etc, which are his. Let us in this way prepare for the greatest crop of strawberries possible to be grown in the season of 1908.

E. S. V., Foxboro, Ont. In this section we always have relied upon marsh hay for winter mulching for our berry beds, but owing to the scarcity of good hay and the extremely dry season this can now be procured only at a premium; so I thought I'd ask you concerning other methods of mulching. These methods I have heard of but never tried. First, late sowing of oats on the patch and letting it grow up and be cut down by the frost, thus covering the vines. Second, the use of pine and cedar boughs.

2. Also, I'd like to ask you concerning the putting of elm ashes on a berry patch; should it be done before the planting or after?

The principal objection to sowing oats between the rows of strawberry plants is that they draw so heavily upon the moisture in the soil. In a wet fall this would be a great advantage, as it would take up the surplus moisture, leaving just sufficient to develop a good fruit-bud system in the plant, while in a dry fall the oats would rob the plants of the moisture they should have for developing the fruit-bud system. In order to grow a crop of oats that would be of any benefit at all, the seeding should be done the latter part of July or first of August. If we knew at that time what kind of fall we were to have we should know what to do, but that is impossible, and the risk taken is too great. Without the oats we may better control the supply of water in the soil. If dry, continue cultivation to hold the moisture already in the soil. If we have frequent rains, defer cultivation, which will allow much of the moisture to evaporate, cultivating only frequently enough to keep down the weeds. Successful horticulture depends largely on knowing how to create your own conditions, as far as may be done, and this is what The Strawberry aims to teach. We may also say that the oats decompose to such an extent during the winter as to afford little protection to the plants. Of course, if the fall were favorable and the oats ripened before frost affected them, then they would be the same as threshed oat straw. Pine and cedar boughs would serve the purpose of preventing the sun from striking the ground in bright winter days, which would cause rapid thawing. In this respect they would be as good as anything you might secure; but they would not afford a proper carpet for the berries to ripen upon. We really believe the marsh hay would be the cheapest even though you have to pay a high premium to get it.

3. Elm ashes are not so valuable as the ashes of hickory, oak or maple. You could safely use as much as seventy-five bushels to the acre of them, and they should be applied and thoroughly worked into the soil before the plants are set.

C. E. T., Digby, N. S. I want to set some more strawberry plants next spring. How shall I prepare the ground—spread the manure this fall and plow it in or spread it this fall and plow it in in the spring?

2. I want the late varieties. I have some Pride of Michigan. Would the Dornan be all right set with them? If not, tell me which kind will be the best?

3. I want to save some plants from the runners. When they take root do you cut the runner from the mother plant?

4. I see in The Strawberry that you say to mow off the vines and burn them. Do you burn over the crown or between the rows?

After many years' experience in preparing the soil for strawberries we have decided that the best way is to break it up in the fall, sow rye at the rate of five pecks to the acre; then in the winter, when there is time to spare, haul out manure and spread it evenly over the ground. This will in no way interfere with the growing of the rye, as it is so hardy that it will work its way up through the manure. The rye as a fertilizer is of itself of little value; but as a conserver of the plant food in the soil it plays a very important part. The freezing and thawing which alternate during the winter tends to cause the dissolution of the plant food and the rains tend to leach the most valuable elements from the manure, and just at the time this is going on is the very time when the roots of the rye are feeding the most heavily. Consequently, the escaping plant food is absorbed and held by the roots of the rye, and when plowed under is in readiness for the plants. Rye also is valuable as a winter covering, preventing the soil from puddling and becoming hard and lifeless.

2. Your idea in setting late varieties is a good one for your locality, as this will enable you to put very late berries upon the market, and get top prices. Dornan and Pride of Michigan go very well together and both are very valuable varieties. We also would suggest Gandy, Sample and Mark Hanna. Stevens' Late Cham-

Genuine Made-to-Order PAINT

I Ship my Paint in extra size Gallon cans—guaranteed to contain full measure.
These cans are dated the day the paint is made—*your* guarantee that the Paint is absolutely *fresh* when you get it.
Out of any six-gallon order or over you may use two gallons on your buildings.
If it is satisfactory, use the balance. If it *isn't* satisfactory, return the balance. I'll refund all the money paid—pay transportation both ways—and the test shan't cost you a cent.
Making Paint fresh to order on a big scale for the individual user enables me to offer a *better* paint—at a *lower* price—than any Mail-Order House or paint company in the United States.
Don't think of buying Paint anywhere until you get my proposition.
I can save you some money on a paint that's bound to please you—because if it doesn't please you, you can send it back after you have used two full gallons.
Won't you write today for my Big Paint Book and other printed matter? It is sent FREE—together with sample colors to choose from. Just send me a postal with your name and address—and do it *now*—while it's on your mind.

84 Cts. Per Gal. Full Net Measure.
FREIGHT PREPAID
Free Two Full Gallons To Try

O. L. CHASE, The Paintman, Dept. U, ST. LOUIS, MO.

pion and Cardinal are two splendid late varieties, but as they are new and untried would suggest that you try them in a small way first.

3. It is not necessary to cut the runner cord after the young plant takes root, as this young plant becomes self-supporting and draws no nourishment from the mother plant.

4. In burning over the bed of strawberry plants let the fire go over the entire ground. Before doing this the mulching should be loosened up so that the mulching will burn rapidly.

⚜ ⚜

J. T. G., Southboro, Mass. I prepared my small strawberry bed, after fruiting, for next year's crop according to the method given in your catalogue and The Strawberry. I lost nearly all the plants and I enclose two of the crowns. Did I cut them off too low down?

The crowns of the strawberry plants indicate only too clearly the reason for your failure. In cutting off your plants we note that you have cut through the crowns, severing the vital parts of the plants, which resulted in killing them. In cutting off plants of an old fruiting bed the machine used for the purpose may cut close to the ground, but never should go beneath the surface.

⚜ ⚜

F. B., Litchfield, Ill. Are old rotted logs and leaves and fine loose soil, such as is found in heavy timbered land, as valuable as barnyard manure for strawberries and all other vegetables? I have to haul manure two and one-half miles from town, but there is heavy timber only a quarter of a mile from my strawberry and truck patches.

The loose, black soil and rotted logs and leaves from the woodlands would tend greatly to improve the mechanical condition of your soil, making it lighter and more readily susceptible to aeration, but the quantity of plant food in the vegetable matter you thus describe is relatively small as compared with barnyard fertilizer, therefore the chemical results on the soil would not be nearly so marked where these materials from the woods were used as where barnyard fertilizer was employed. However, humified organic matter contains quite a supply of the element nitrogen, and will aid in increasing the content of that important element in your soil; but we should advise you to use a generous quantity of barnyary manure, even though you do employ a large amount of this decaying vegetable matter.

⚜ ⚜

T. H. M., Thornton, R. I. Would you suggest the best way to set the following varieties: Climax, Warfield, Beidler, Thompson's No. 2, Glen Mary, Wm. Belt, Senator Dunlap, Brandywine and Pride of Michigan?

2. I have two pieces of ground in preparation for next spring's planting, about an acre in all. One piece, about three-fourths acre, is flat and one-fourth acre slopes to the north in two different fields. Of Beidler and Thompson's No. 2 I am going to try only a couple of hundred plants, and about 100 Pride of Michigan, just to try them out. I want to grow for market and if I can get good-sized berries I will get good prices; but small berries will be a drug, so I would like to set in either the single or double hedge row to get best results.

3. I enclose leaves of the Senator Dunlap variety. They seem to be dying for want of moisture, but I have cultivated every week during a long drought of eighty days according to your directions, and some of them are looking fine and are making plenty of good runners, but the ones that are affected are plants that started off all right and attained a good growth, but the runners on the infected ones did not grow, so I pulled them up also.

4. Will you tell me how to tell a plant infected with mildew? With blight and fungi?

5. Which of the varieties of cowpeas do you advise for green manuring and will I broadcast or drill in?

6. Is sulphuriate of potassium liver of sulphur, and how much of it shall I put to the gallon of water?

7. How much blue vitriol and lime will it take to a gallon of water?

8. About six weeks after I set out plants I worked in some ground bone but never applied any potash. Could I put potash on now, and do I need to put any nitrate of soda with it?

9. Would you recommend "Swift's Strawberry Special" or would it be better for me to buy my nitrate, bone and potash and mix them myself; and who would you advise me to buy them from?

We should set the several varieties named in the following order: Climax, Warfield, Senator Dunlap, Beidler, Thompson's No. 2, Glen Mary, Wm. Belt, Brandywine, Pride of Michigan. If you are setting a large acreage you may set three rows of each kind in the order named. The point we wish to impress is that not more than three rows of pistillates should ever be set solidly together, but should have a bisexual every three rows.

2. You are correct; it does not pay anybody to grow inferior strawberries, and if well-developed plants are uniformly used and they are given intelligent care, with a favorable season the berries always will be fancy.

3. The leaves you send us appear to be healthy with the exception of a very few rust spots. The fact that you have carried your plants through an eighty-day-drought is proof that you have followed thorough cultural methods. We are pleased to know that the advice of The Strawberry has led you triumphantly through such a siege. Regarding the few

"The Whole Thing in a Nut Shell"

200 Eggs a Year per Hen

HOW TO GET THEM

THE sixth edition of the book, "200 Eggs a Year per Hen," is now ready. Revised, enlarged, and in part rewritten, 96 pages. Contains among other things the method of feeding by which Mr. S. D. Fox, of Wolfboro, N. H., won the prize of $100 in gold offered by the manufacturers of a well-known condition powder for the best egg record during the winter months. Simple as a, b, c—and yet we guarantee it to start hens to laying earlier and to induce them to lay more eggs than any other method under the sun. The book also contains recipe for egg food and tonic used by Mr. Fox, which brought him in one winter day 116 eggs from 72 hens; and for five days in succession from the same flock 64 eggs a day. Mr. F. F. Chamberlain of Wolfboro, N. H., says: "By following the methods outlined in your book I obtained 1,496 eggs from 91 R. I. Reds in the month of January, 1902." From 14 pullets picked at random out of a farmer's flock the author got 2,999 eggs in one year—an average of over 214 eggs apiece. It has been my ambition in writing "200 Eggs a Year per Hen" to make it the standard book on egg production and profits in poultry. Tells all there is to know, and tells it in a plain common-sense way.

Price 50 cents; or with a year's subscription to the American Poultry Advocate, both for 75 cents, or given as a premium for 2 yearly subscriptions at 50 cents each

Our paper is handsomely illustrated, 44 to 80 pages, 50 cents pe. year. 3 months' trial, 10 cents. Sample free. CATALOGUE of poultry books free.

AMERICAN POULTRY ADVOCATE,
85 Hogan Block, Syracuse, N. Y.

plants that started to grow vigorously, but had a setback, we think the experience is due entirely to some underground insect. The fact that it attacks only an occasional plant indicates that there is no cause for alarm because of its presence.

4. Mildew, blight and rust are all fungous troubles. Mildew is detected by the curling up of the leaf. Blight gives a reddish tinge to the leaves, and rust starts with small red spots which enlarge until the entire leaf is covered. Eventually the rust eats through the tissues of the leaf. Spraying should be begun at the first sight of any of these troubles. There is no cure for them, but their spread may be prevented in this way. Use Bordeaux mixture for everything except mildew; for this use liver of sulphur.

5. Most any of the cowpeas are good to improve the mechanical condition of the soil. For your latitude we think the Clay and Wonderful would give entire satisfaction. We advise Northern-grown seed, as the department of agriculture finds Southern seeds possessed of little germinating power.

6. Sulfate of potassium and liver of sulphur are the same. In spraying with liver of sulphur we use three pounds to fifty gallons of water. If you require but one gallon of spraying material use one ounce of the liver of sulphur.

7. In making one gallon of Bordeaux mixture use one tenth of a pound of vitriol and one-tenth pound of lime.

8. You should have applied the potash with the ground bone. However, if you will scatter unleached wood ashes between the rows at the rate of fifty bushels to the acre, and work it into the soil this fall, we think it will furnish potash enough to give desired results. Nitrate of soda may be used next spring at the rate of eighty to one hundred pounds to the acre.

9. We have great confidence in Swift's specially prepared fertilizers, and in preparing them we know they use the highest grade of goods.

M., Shenandoah, Pa. In what proportion should poultry droppings (with the nitrogen preserved by being mixed with land plaster) be used with some other fertilizer to secure a large yield of berries—what fertilizer goes best with them—what time of the year should the mixture be applied to the soil and in what manner? Would this mixture be a good general manure for the average berry before special deficiencies of the soil became known—in a first crop, for instance, on a new place? If not, what would be?

If you will take a ton of your chicken droppings and land plaster and add to this about six hundred pounds of ground phosphate rock, mixing these thoroughly, and scatter over one acre of ground in the spring, then scatter evenly fifty bushels of wood ashes, or use the proper proportion of kainit, instead of wood ashes, you will have a well-balanced fertilizer for strawberries and for general purposes as well. If kainit is used it may be mixed in with the phosphate rock and droppings and the whole sown together. Write the German Kali Works, 93 Nassau street, New York, for their free book on kainit. It will give you much valuable information.

G. F. M., Charleston, Wash. Do you consider it good practice to place fresh cow manure, free from litter or chaff, between the rows of strawberry plants? This to be worked in.

2. What remedy would you advise for the "spit bug"?

3. Does the "spit bug" work any injury to the plants?

4. Do you advise cultivation with the hoe during the fruiting period? If so, what do you do with the mulch between the rows?

5. I expect to use summer fern or "fern brakes" as they are called by some for a mulch this winter. Would it be better to cut them to about one and one-half inches? They grow from two feet to eight feet long in this part of the country.

6. When would you permit runners to start on plants set this spring?

Where ground is not in good condition, it is an excellent plan to scatter fresh cattle manure thinly between the rows and work it into the soil with cultivators.

2. So far as we have ever learned the spittle insects do but very little injury to plant life. They feed on a variety of things, but are rarely found on cultivated crops. This also answers your question No. 3.

4. It is not advisable to hoe a fruiting bed. If any cultivation is done in the fruiting bed it should be done in the space between the rows. This does not interfere with the mulch that lies close to the plants which protects the berries from becoming dirty.

5. We do not think it is necessary for you to cut the ferns at all. We have never used them for mulching, but should think that only the shortest and most bushy should be used. Wheat straw makes the best mulching you can get, but any mulching is better than nothing.

6. Runners should be allowed to start as soon as the mother plant has gotten well under way and has made good vegetative growth.

W. R. R., Minneapolis, Minn. I have a piece of ground which I intended to prepare this summer for 1908 planting, but the manure was full of grubs, so I left the ground alone. Would it have been all right to have plowed and sown the rye anyway?

2. If I wait until winter when ground is frozen and then apply the manure, do you think the grubs will live and trouble the plants when I plow next spring?

3. In the propagating bed, about what number of runner plants will one mother plant send out?

Even though you did not cover the ground with manure this winter it would be a good plan to break the ground up and sow the rye. By plowing the ground

Send For Our Stove Book

WHY NOT GET THE BEST and SAVE FROM $5 to $40 ?

You know that there must be a big difference between the factory price and the dealer's price on a good stove or range.

Why not save that difference and keep that extra profit in your pocket?

You know that there must be a big difference between a strictly high-grade stove, made of the best materials by expert workmen, and a "cheap" stove made of scrap iron by inferior workmen.

Why not get the best you can find—especially when you can buy it at the actual factory price?

That's exactly what we offer you:

"A Kalamazoo Direct to You"

TRADE-MARK REGISTERED

A Stove or Range of the highest quality at actual Factory Price on 360 Days Approval.

You cannot secure anywhere a better stove or range than the Kalamazoo—no matter how much extra you pay. We guarantee that, under a $20,000 bank bond, and give you 360 days in which to prove it yourself.

Our first idea is to make the best stoves and ranges that human skill and experience and honest workmanship can produce from the best procurable materials.

That's why we use only the highest grade pig iron, and a better grade of steel than any other stove manufacturer in the United States.

That's why we employ the most skilled workmen in the business, and maintain one of the best equipped, most modern stove factories in the world.

And that's why the Kalamazoo line has become so famous as fuel-savers, as good bakers and quick heaters; and why they last so long and give such good satisfaction.

At the same time our system of manufacturing and selling direct is such that we save you $5, $10, $20 and in some cases as much as $40 on every purchase.

You cannot get a better stove or range as man can make—and you save from 20 to 40% in buying it.

And don't forget: you get your money back if it is not in every way exactly as represented.

We pay the freight

and ship all Kalamazoos blacked, polished and ready for immediate use. Any man can remove crating and set them up.

Send Postal Today For Catalogue No. 348

Compare Kalamazoo Quality and Kalamazoo Prices with others—and save your money. Our line is complete, embracing stoves and ranges of all kinds for all domestic purposes for the home, school, church, halls, lodge rooms, etc. Hotel ranges for restaurants, boarding houses, clubs and camps.

Gas stoves and ranges for cooking and heating—all sold at factory prices.

KALAMAZOO STOVE COMPANY, Manufacturers, Kalamazoo, Michigan.
Original "Direct-to-user" Manufacturer. Beware of Imitators.

Kalamazoo Royal Steel Range, one of many styles—exceptionally economical of fuel.

All our cook stoves and ranges are equipped with patent oven thermometer, which saves fuel and makes baking and roasting easy.

Kalamazoo Radiant Base-Burner. Positively the best bargain ever offered in a heating stove.

in the fall you secure a much better condition of the soil, as it will take up and hold more of the water caused from rain and snow during the winter months. Many experiments have been made along this line which have shown that ground broken in the fall and given a cover crop will stand more drouth the following season when properly treated than soil which has laid unbroken and packed hard all winter. While the rye will not add any value to the soil in the way of plant food, it will prevent a lot of plant food from being wasted.

2. As your manure contains so many white grubs, it will be best not to apply it until cold winter weather comes on. If this manure lies in a heap in the barnyard and you have poultry or hogs, you could do nothing better than to turn them into the yard and spread the manure in the yard so that these animals could free the manure of the grubs. Then scattering the manure over the prospective strawberry field while the ground is frozen would prevent the remaining grubs from burrowing into the soil, leaving them on top to be frozen or devoured by birds. If you will follow these suggestions you may feel perfectly safe about setting your strawberry plants in the spring in soil containing this manure.

3. The number of runner plants made by one mother plant depends entirely upon the condition of the soil, the variety and the season. In rich loamy soil, with plenty of moisture, the more prolific varieties would make from forty to fifty good plants, while those less prolific would range from twelve to twenty-five or even thirty.

D. J., Youngstown, Ohio. How near, without harm, can wood ashes, nitrate of soda, bone meal, bone dust, etc., to growing plants be placed?

2. Ought the plants attached to mother plant by runner be detached? If so, where?

3. If you can use hose, how often ought plants to be watered?

Wood ashes may be put directly under the foliage of plants without any injury. Bone meal, nitrate of soda or any other chemical fertilizer should not be put closer than from six to eight inches to the plant. The object is to let the soil take up the leachings, and by the time this process takes place the roots of the plants will be ready to absorb it.

2. It is not necessary to sever the young runner plants from the mother plant. After the young plant becomes rooted it draws very little, if any, nourishment from the mother plant.

3. If irrigating is done at all, it should be done before the ground gets very dry. Apply water every two or three weeks, and at each irrigation see that the soil is soaked clear down to sub-soil.

C. B. W., Denver, Colo. I never have seen anything in The Strawberry about irrigating plants with water pumped from a well, and as this means of getting water here in Colorado is coming into use, it might be of interest to some here, myself especially, to have the opinions of some of the readers on this matter. I have a piece of ground that I can irrigate by pumping the water from a well only about twelve feet deep. Now I am somewhat afraid the water might be too cold, as it is about 48 degrees F. as it leaves the pump, but on other things in the garden, such as cucumbers, tomatoes and melons, if the water is put on before noon so the soil will get warm again before night, these and other truck do not seem to mind the cold water. Now I should like to know if the cold water will check the berries so they would not produce a good crop? I have a gasoline engine and pump that will throw about 120 gallons per minute, so it would not take long to go over a large piece of ground. If any of the readers have any information on this subject would they kindly let others know their experience?

If water at 48 degrees F. were pumped directly upon the plants, it would not be a good thing for them, but as irrigation of the strawberry is done by running water through a furrow made in the center of the space between the rows, the temperature of the water will have become normal before the water reaches the roots of the plants, and there is no reason for thinking that the plants would suffer in the least or the maturing of the fruit be checked by this proceeding. We shall be glad to have our readers in the irrigating districts discuss the question raised by our Denver correspondent.

B. T. W., Vernon, B. C. Does nitrate of soda applied alone exhaust the soil? If so, why?

2. If not, how has the supposition that it does got about?

Experiments we have made with nitrate of soda go to show that it does not stimulate the soil, but does stimulate the vegetative part of the plants. Immediately after moisture has dissolved the nitrates it becomes available and the plants at once take it up, and when entirely exhausted the plants cease growing so vigorously as when feeding upon it. The soil is then left in the same condition as it was before applying the nitrate of soda. The principal object in using nitrate of soda is to force the vegetative parts to rapid and strong growth; also to hasten the maturing

CLASSIFIED ADVERTISING COLUMN

COLD STORAGE

A COLD STORAGE PLANT will often pay for itself in a single season. Fruit growers without a modern cold room are handicapped. Write for description of the Gravity Brine System, stating size you are interested in, and for purpose wanted. Madison Cooper Company, No. 100 Court St., Watertown, N. Y. tf

FARMS AND LANDS FOR SALE

FOR SALE—40-acre fruit, vegetable and poultry farm, favorably located on a mountain stream of pure soft water; five miles from county seat; three other small towns and several mining camps within eight miles. Soil very fertile and new products of excellent quality and command good prices. Local market never has been fully supplied with home-grown fruit. Good business opportunity for an energetic man that has some help and of limited capital. Terms easy. For further information address T. P. Cox, Virginia City, Montana. 11

IF YOU WANT TO SELL, trade or buy a farm, send full description of what you have or want, with 25 cents, to the Farmers' Want Journal, Dept. SS, Kansas City, Mo., and we will advertise it before 30,000 buyers and sellers and send you a copy of the paper. 10

POULTRY

WHITE WYANDOTTE stock for sale—Duston strain. Cockerels for $2.00 up. H. F. Hallett, Astfield, Mass. 10

$9.50 A STARTLER

This highly polished Brass Bb Cornet, complete with A and Bb Shank Music Lyre, Silver Plated Mouth piece, Water Key, in fine canvas case leather bound with shoulder strap, is but one of our many wonderful values in all styles of instruments. Our name is your guarantee. Send for edition H, New Catalog Get our Bargan Indicator No. 24.

WULSCHNER-STEWART MUSIC CO.,
141 N. Pennsylvania St., Indianapolis, Ind.

ROOF BOOK FREE

Illustrated **ROOF BOOK**, just off the press, tells how to lay durable, water-proof, weather-proof and fire-resisting roofs on residences, barns, cribs, poultry houses, outbuildings, stores, etc. How to cover old shingle roofs. No tools necessary but a knife and a hammer. Tells all about the famous

NO-TAR ROOFING

which is better and cheaper than shingles, slate or tin. **Water-proof, fire-resisting and acid-proof.** Contains no tar but is made from asphalt and cannot dry out or run in the sun. Flint-coated, flexible and easy to lay. Best dealers sell NO-TAR ROOFING. Specm nails and liquid cement FREE in every roll.

FREE SAMPLES TO TEST When we send you the Free Samples of NO-TAR ROOFING, we will tell you TEN WAYS TO TEST IT and PROVE its superiority to any other roofing.

DEALERS—Write for our Roofing-Business Promotion Plan. Address
THE HEPPES CO., 2981 Fillmore St., Chicago

$11.25 for this large handsome steel range

without high closet or reservoir. With high warming closet and reservoir, just as shown in cut, **$17.35. Reservoir** is porcelain lined. Heavy cast top with 6 full size cooking holes. Large square oven, regular 8-16 size. **Body** is made of cold rolled steel, top and all castings of best pig iron **Grate;** we use improved duplex grate, burns wood or coal. **Nickel** band on front of main top; brackets and tea shelves on closet; band and ornament on reservoir, oven door, etc. Highly polished, making it an ornament in any home

$3.25 for this Oak Heater

just as illustrated. Burns hard or soft coal or wood. Has drawn center grate, corrugated fire pot, cold rolled sheet steel body, heavy cast base, large cast feed door, ash pit door and ash pan, swing top, screw draft-regulator. Polished urn, nickel top ring, name plate foot rails, etc.

We have heating stoves of every kind. Hot blast, air tights, the kind that retails for $3.00, for 87c. Base burners at ½ the regular price.

Write for CATALOGUE

OUR TERMS are the most liberal ever made. We will ship you any range or stove, **guarantee** it to be perfect in construction and material; we guarantee it to reach you in perfect condition You can pay for it after you receive it. **You can take it into your own home and use it 30 full days.** If you do not find it exactly as represented and perfectly satisfactory in every way, the biggest bargain in a stove you ever saw or heard of, equal to stoves that retail for double our price, you can return it to us and we will pay freight both ways.

WRITE TO-DAY for our free **Stove Catalogue No. S222** 150 styles to select from, explains our terms fully; tells you how to order Don't buy a stove of any kind until you receive our illustrated catalogue and read our liberal terms and lowest prices ever made. A postal card will bring it to you.

MARVIN SMITH CO. CHICAGO. ILL.

SALESMEN WANTED $100.00 PER MONTH AND EXPENSES PAID

We want wide-awake, influential people in every community TO SELL OUR

NEW, WONDERFUL, AND FAST-SELLING **Santo** DISH WASHERS AND CLOTHES WASHERS

The Santo Dishwasher

Washes, rinses and dries your dishes **perfectly in 5 to 10 minutes** without soiling either your hands or your floors.

You simply put in your dishes, turn the crank a few times, then take your dishes out and put them away.

Great, isn't it?

You couldn't break or otherwise damage your dishes in the Santo if you tried; **the dishes sit still**—nothing touches them but the boiling hot water.

The Santo is the only Dishwasher in the world for family use. **It actually saves the housewife over 400 hours a year.** At only 10c per hour this saving amounts to $40 per year which is several times what the Santo cost you.

With a Santo in your kitchen you will find **real pleasure** in washing dishes. **It saves your hands, your china,** and **two-thirds of the time** required to wash dishes by hand.

You need a Santo Dishwasher—**you can afford it** at the low price we ask and will prize it above **any other home necessity.** Write today for free booklet whether you want to work for us or not. It tells how truly the Santo Dishwasher Bears your Burdens.

The Santo Clotheswasher

Is **entirely different** from all other washers. You have never seen anything like it and will never see any other washer so good.

The Santo is the **only** washer in the world that washes delicate lace fabrics **without injury.** It washes everything from lace handkerchiefs to heavy blankets and rugs.

It washes every thread **perfectly** without **rubbing** your clothes to pieces. It takes out the dirt by **suction** and **compression** of air and water. **No boiling necessary.**

The Santo Clotheswasher will **almost double** the life of your clothes. It washes ten to forty pieces to spotless perfection **easier** and **quicker** than you can wash **one piece** by hand.

This wonderful washer is made **entirely of metal**—**no wood inside** to warp and make slivers and no **contraptions inside** to tie your clothes into a knot and tear them.

The Santo would be cheap in price at $25 but you can have it at the **same price** you would have to pay for the old-style wooden washers. Write for free booklet and learn what the **ONLY PERFECT WASHER** will do.

A Brand New Plan. No Experience Necessary. Sample Washers Free.

SEND US YOUR APPLICATION TO-DAY. Tell us how many in your family, whether married or single, how old you are and how long you have lived in your community. Tell us how many families you know and give us the names of two reliable business men to whom we can refer. We do not care so much for your experience as we do for your influence. Our plan is new and original—If you can combine **your influence** with **our plan** we want you. Write to us now and get into one of the greatest sales organizations in the world. We offer you a wonderful opportunity to get into a **big business** and a position of **affluence**—Don't let it pass. It will be worth money to you to know about the Santo Dishwashers and Clotheswashers, whether you want to work for us or not. Remember, If you go to work for us—**YOU WILL GET YOUR SAMPLE WASHERS FREE. Write to us right now while you are thinking about it.**

ADDRESS PRINCE MANUFACTURING COMPANY, DEPARTMENT 65, CHICAGO, ILL.

of the crop. As we have said many times before, the only time to use nitrate of soda is in the spring just as growth starts and again just before buds open. The first application will last the plants until the second is dissolved, and thus they will be carried through the fruiting period.

2. In this connection we might say that lime does stimulate soil action and thus tends to deplete the soil of its plant food. Repeated applications of lime, therefore, eventually will exhaust the soil. It may be that those who have spoken of the exhausting nature of nitrate of soda confused lime with the nitrates.

⚜ ⚜

C. G., Honeoye, N. Y. Is sawdust good to mulch strawberries; or would it be good to put on in the spring to conserve moisture through the picking season?

Sawdust is not good as a mulch, but will give the one who uses it a great deal of trouble. Sawdust has no business in the strawberry field whatever, and should never be used there.

⚜ ⚜

M. M. P., Alton, N. H. What shall I do with land that is possessed by sorrel?

Persistent and thorough cultivation is about the only remedy for this pest. Keep the soil constantly stirred up and you will discourage its growth entirely. As sorrel in the soil is an indication of sourness, the working in of about seventy-five bushels of wood ashes to the acre will assist, in connection with thorough cultural methods, to rid the soil of the pest.

⚜ ⚜

A. D., Westford, Mass. I have a piece of new low land which was in potatoes last year and in green oats now; would it be a good plan to plow it under this fall, sow it to rye, replow it next spring and set it to strawberries? The soil is light, sandy and frosty. What fertilizer would you advise if barnyard manure is not obtainable?

2. I picked 65 quarts off 45 mother plants of Aroma, but the fruit was uneven and the big fellows were hollow; I would like to know the cause and remedy. They were cultivated in the narrow matted system.

3. I have an extra early variety and a medium variety of which the cones in the blossoms all turned black and were a failure.

4. I propose setting more Aromas next spring, but I would like to give them a mate to see if it would give them more uniformity, but I am at a loss to know what variety or varieties to use.

Plow the oat stubble under this fall and sow the rye the first part of October, and if manure cannot be secured, we would recommend a commercial fertilizer analyzing nitrogen 3 per cent, potassium 9 per cent and phosphorus 7 per cent. Any company putting up fertilizers will prepare you a brand containing elements named in these proportions. The proper time to apply a commercial fertilizer is in the spring after the rye has been turned under; and be sure and work it thoroughly into the soil before setting the plants.

2. We presume that you have had quite a little rainfall during the ripening of your berries; this in connection with cool weather would cause the berries to grow so rapidly as to make the center hollow.

3. Frost at blooming time will cause the center cones to turn black and will prevent them from maturing berries. It is quite likely that this is the cause of your trouble.

4. We are well satisfied that it pays to mate bisexuals the same as pistillates. Of course, all bisexuals will produce a good crop when set alone, but the time has come when strawberry growers are not satisfied with a good crop; they insist on having the biggest crop of fancy berries that possibly can be grown. In mating Aroma use any of the following bisexuals: Pride of Michigan, Dornan, Marshall or Stevens' Late Champion. Any varieties we have named will give excellent results in the system you propose to follow.

FUN FOR THE FAMILY

Your Own Ideas Count in Getting Up Home Entertainments.

How do you amuse yourself evenings?

There are many ways in which you can plan games and entertainments for the family and for your visitors.

Now I want to tell you of the best form of entertainment ever invented—more fun, more real enjoyment for old and young than any other and COSTING YOU BUT LITTLE in the long run.

It is so easy to learn, that I am particularly glad to put on this page the free trial offer of the Edison Phonograph Distributers.

Editor's Opinion of Edison

The editor of this paper is impressed by the variety of wonders of the phonograph. Think of the musical art being handed over to a person who is absolutely without musical training! Yet this is exactly what the instrument accomplishes. Anybody can learn in two minutes how to operate an Edison phonograph. You arrange your own program! You become the director of an orchestra, the leader of a minstrel show, the creator of an entertainment!

Suppose I want an evening concert to please the widest kind of taste. I get up something like this:

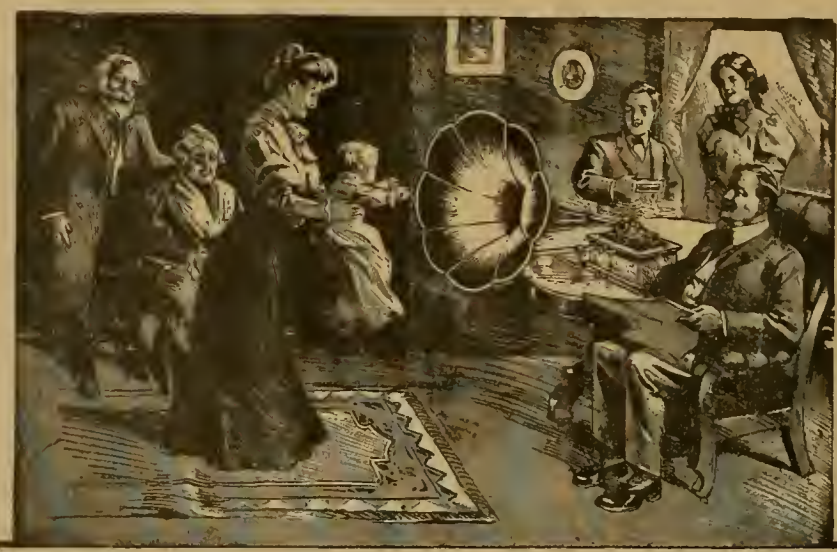
Sample Program
For an Evening Concert

9169 "Good Night," waltz..... Band
8573 "Any Rags?" medley..... Vocal
9054 "Dearis"..... Tenor Solo
7422 "Man Behind the Gun," march ..... Band
7590 "Holy City"..... Violin Solo
8958 "In the Shade of the Old Apple Tree"..... Vocal
4004 "Laughing Song"..... Comic
1575 "Sweetest Story Ever Told"..... Song
2201 "Annie Laurie"..... Male Quartette
9143 "Courtship of Barney and Eileen"..... Recitation
8394 "Thoroughbred," two-step..... Band
614 "Titl's Serenade"..... Orchestra

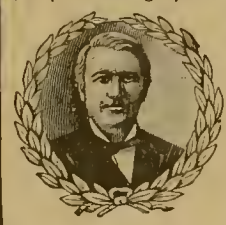
Suppose you want to have an afternoon concert on the lawn—the kind of a concert that will arouse drooping spirits on a hot day. Just pick out some dashing minstrel records, some booming band pieces and few funny recitations—in a short time you are under the sway of the great new 1907 model Edison phonograph.

Read the Editor's Advice

The editor urges you to give the Edison proposition your careful attention. Remember, you can borrow an Edison on free trial, and you can pay for it either in cash or on easy payments. The Edison catalog, which is furnished free, gives an immense list—1,500 records—to choose from. Write for this catalog at once. You need only sign and send the coupon to get this catalog free, prepaid. Better sign the coupon now.



LOOK at this happy home scene with the baby laughing, the mother so happy, and the grandmother in the corner—all enjoying the Edison phonograph. The Edison has indeed been rightly called the king of entertainers for the home. Read what Mr. Edison says. Read below how every responsible person can get a genuine Edison phonograph on **free trial**, to be bought, if acceptable, either for cash or on the easiest possible monthly payments.



Thomas A. Edison

Mr. Edison says:

"I want to see a Phonograph in every American home."

For the phonograph, as the reader may know, is the wizard's hobby. His telephone and telegraph inventions have passed into the hands of big stock companies, but the phonograph remains Mr. Edison's own. He has worked over it continuously so that today the **new improved 1907 model genuine Edison phonograph** is a perfect musical instrument. You cannot realize its superiority until you have heard it and tried it yourself in your own home.

FREE TRIAL

Every responsible person is invited to a *free trial* of the new style improved 1907 model genuine Edison phonograph. Free trial means free trial. You pay us nothing—not one cent—no C. O. D. either. You take the instrument to your home and play all the beautiful Edison records—stirring band and orchestra records, the most laughable comic recitations, the latest songs, and up-to-the-minute hits. Let your family and friends hear the machine laugh, sing, talk, play—then decide. *If* you wish, return outfit *at our expense.*

If you are more than pleased, if you decide to keep this king of entertainers—and we know you will—you have the choice of sending cash in full for the outfit or paying on the easiest possible payments—*and the outfit bought on time costs you as little* as if you paid cash in full.

$2.00 a Month now buys a genuine 1907 model Edison outfit including one dozen highly finished genuine Edison records. The finest improved 1907 model Edison outfit only $3.50 a month. And at *rock-bottom price, no matter whether you send the cash in full or pay on our easiest terms. Surprising rock-bottom prices on the finest improved Edison outfits—one-third and one-fourth the price of inferior imitations. Sign the coupon and get the catalogs.*

Edison Catalogs FREE

Sign this coupon and get the great Edison catalogs, the catalog of phonographs showing every style of Edison machines and the catalog of 1500 Edison records; also the magnificent circular of our new 1907 model Edison outfit No. 5. You will be *surprised* at the *rock-bottom prices* on the finest kind of talking machines. Get all these catalogs free prepaid and select the machine you want to try on free trial offer. Every responsible reader of this paper should sign this coupon. **You need not bother with a letter.** Just write your name and address *plainly* on the coupon and mail in an envelope. *Sign this coupon now.*

CUT OR TEAR ALONG THIS LINE

F. K. BABSON
Edison Phonograph Dist.
Edison Bldg.
Suite 3045 Chicago

Without any obligation on me please send at once to me free, prepaid, Edison catalog, special circular of new style outfits, Edison record catalog and full explanation of the free trial easy payment offer.

Name.....

.....

Address.....

.....

Don't bother with a letter; coupon will do.

Edison Phonograph Dist., F. K. BABSON
Edison Bldg., Suite 3045
CHICAGO, ILLINOIS

Thomas A. Edison

For Cash in Full

So many cash buyers are sending for a free trial of our new 1907 model Edison that we are asked continuously what discount we can allow for cash. But as the prices at which we sell on time are already **the rock-bottom prices,** *below which no one is allowed to sell,* we must state once more that *a cash discount is simply impossible.* We must treat all purchasers of the Edison alike.

The Great Edison Outfit No. 5